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SUDARSANAM, SUCHA



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<211> 2298

<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<210> 28

<211> 831

<212> DNA

<213> Homo sapiens

<400> 28

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<211> 858

<212> DNA

<213> Homo sapiens

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<211> 1242

<212> DNA

<213> Homo sapiens

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<211> 963

<212> DNA

<213> Homo sapiens

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<212> DNA
<213> Homo sapiens

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<212> DNA
<213> Homo sapiens

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 <211> 666
 <212> DNA
 <213> Homo sapiens

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<210> 35
 <211> 2847
 <212> DNA
 <213> Homo sapiens

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<210> 36
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 <212> DNA
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 <212> DNA
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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<210> 53

<211> 855

<212> DNA

<213> Homo sapiens

<400> 53

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gtgaccccc	actccaggcc	ctacatggca	tccgtgcgct	tcgggggcca	acatcactgc	180
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cagcagggtg	ttggcatcga	tgctctcacc	acacaccccc	actaccaccc	catgaccac	360
gccaacgaca	tctgcctgct	gcagctgaac	ggctctgctg	tcctggggccc	tgagtggggg	420
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gtccgagtgc	tggacccgga	cgtctgcaac	agctcctgga	agggccacct	gacacttacc	600
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<210> 54

<211> 2409

<212> DNA

<213> Homo sapiens

<400> 54

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gtgctactct	gggtatttct	agggtacaag	gcggagggtga	tggtcagcca	ggtgtactca	240
ggcagtctgc	gtgtactcaa	tcgccacttc	tcccaggatc	ttacccgccg	ggaatctagt	300
gccttccgca	gtgaaaccgc	caaagcccag	aagatgtctca	aggagctcat	caccagcacc	360

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cgcttgggaa cttactacaa ctccagctcc gtctattcct ttggggaggg acccctcacc 420
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ccctacaggg ccgagtacga agtggacccc gagggcctag tgatcctgga agccagtgtg 600
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ggccagggtcc tccggtgaa ggggcctgac cacctggcct ccagctgcct gtggcacctg 720
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<210> 55

<211> 1080

<212> DNA

<213> Homo sapiens

<400> 55

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aggctcggcc cctcgccgga accggcggct agttcccagc aggtgaggc cgtccgcaag 180
aggctccggc ggcggaggga gggagggcg catgcaaagg attgtggaac agcaccgctt 240
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ccgtgggtgg tgagcctgca gattaaatat ggccgtgttc ttgttcatgt atgtggggga 360
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cctttaatgt ggacagctgt gattggaact aataatatac atggacgcta tcctcatacc 480
aagaagataa aaattaaagc aatcattatt catccaaact tcattttgga atcttatgta 540
aatgatattg cactttttca cttaaaaaaa gcagtgaggt ataatgacta tattcagcct 600
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cattatattt ctcgagagat gtgtaattct gagaggagtt atgggggaat aattcctaac 780
acttcatttt gtgcagggtg tgaagatgga gcttttgata cttgcagggg tgacagtggg 840
ggaccattaa tgtgctactt accagaatat aaaagatttt ttgtaatggg aattaccagt 900

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tacggacatg gctgtggtcg aagagggtttt cctgggtgtct atattgggcc atcctttctac 960
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<210> 56
 <211> 867
 <212> DNA
 <213> Homo sapiens

<400> 56
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 gatggagctg cccactccat gggcctgggc agcagcttga agtgggctg ggccaagccc 180
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 gcgcacatct gtgggggctc cctcatccac cccagtgagg tgctgactgc tgcccactgc 360
 attttctgga aggacaccga cccgtccatc taccggatcc acgctgggga cgtgtatctc 420
 tacgggggccc gggggctgct gaacgtcagc cggatcatcg tccaccccaa ctatgtcact 480
 gcgggggctgg gtgcggatgt ggccctgctc cagctgccgg ggtcacctct cccccagag 540
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<210> 57
 <211> 135
 <212> DNA
 <213> Homo sapiens

<400> 57
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<210> 58
 <211> 138
 <212> DNA
 <213> Homo sapiens

<400> 58
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 ttctacaaga aatggatt 138

<210> 59
 <211> 930
 <212> DNA
 <213> Homo sapiens

<400> 59
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 tttcctgaaa aaacatttct cttttcttat agagcatcac tccttgctgt tgtaacacac 120

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agatccaata atagtcgtgg gcgagctttt gagagtcagg ttcttcccga tttgacagca 180
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cactatcaaaa atgaaatctt gctgcacgga gttgagctca tcatcagtga agctatgatc 840
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<210> 60

<211> 315

<212> PRT

<213> Homo sapiens

<400> 60

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Met Lys Cys Leu Gly Lys Arg Arg Gly Gln Ala Ala Ala Phe Leu Pro
  1              5              10              15

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Leu Cys Trp Leu Phe Leu Lys Ile Leu Gln Pro Gly His Ser His Leu
      20              25              30

```

```

Tyr Asn Asn Arg Tyr Ala Gly Asp Lys Val Ile Arg Phe Ile Pro Lys
      35              40              45

```

```

Thr Glu Glu Glu Ala Tyr Ala Leu Lys Lys Ile Ser Tyr Gln Leu Lys
      50              55              60

```

```

Val Asp Leu Trp Gln Pro Ser Ser Ile Ser Tyr Val Ser Glu Gly Thr
      65              70              75              80

```

```

Val Thr Asp Val His Ile Pro Gln Asn Gly Ser Arg Ala Leu Leu Ala
      85              90              95

```

```

Phe Leu Gln Glu Ala Asn Ile Gln Tyr Lys Val Leu Ile Glu Asp Leu
      100             105             110

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```

Gln Lys Thr Leu Glu Lys Gly Ser Ser Leu His Thr Gln Arg Asn Arg
      115             120             125

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```

Arg Ser Leu Ser Gly Tyr Asn Tyr Glu Val Tyr His Ser Leu Glu Glu
      130             135             140

```

```

Ile Gln Asn Trp Met His His Leu Asn Lys Thr His Ser Gly Leu Ile
      145             150             155             160

```

```

His Met Phe Ser Ile Gly Arg Ser Tyr Glu Gly Arg Cys Leu Phe Ile
      165             170             175

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```

Leu Lys Leu Gly Arg Arg Ser Arg Leu Lys Arg Ala Val Trp Ile Asp
      180             185             190

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Cys Gly Ile His Ala Arg Glu Trp Ile Gly Pro Ala Phe Cys Gln Trp
 195 200 205
 Phe Val Lys Glu Ala Leu Leu Thr Tyr Lys Ser Asp Pro Ala Met Arg
 210 215 220
 Lys Met Leu Asn His Leu Tyr Phe Tyr Ile Met Pro Val Phe Asn Val
 225 230 235 240
 Asp Gly Tyr His Phe Ser Trp Thr Asn Asp Arg Phe Trp Arg Lys Thr
 245 250 255
 Arg Ser Arg Asn Ser Arg Phe Arg Cys Arg Gly Val Asp Ala Asn Arg
 260 265 270
 Asn Trp Lys Val Lys Trp Cys Gly Lys Phe Gly Thr Asn Trp Asp Pro
 275 280 285
 Asp Pro Lys Val Ser Ala Gly Phe Thr Leu Gln Asn Met Ser Pro Glu
 290 295 300
 Asp Ser His Gly Arg Leu Met Phe Phe Cys Met
 305 310 315

<210> 61
 <211> 374
 <212> PRT
 <213> Homo sapiens

<400> 61
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 Gly Gly Leu Gly Tyr Asp Arg Ser Leu Ala Gln His Arg Gln Glu Ile
 20 25 30
 Val Asp Lys Ser Val Ser Pro Trp Ser Leu Glu Thr Tyr Ser Tyr Asn
 35 40 45
 Ile Tyr His Pro Met Gly Glu Ile Tyr Glu Trp Met Arg Glu Ile Ser
 50 55 60
 Glu Lys Tyr Lys Glu Val Val Thr Gln His Phe Leu Gly Val Thr Tyr
 65 70 75 80
 Glu Thr His Pro Met Tyr Tyr Leu Lys Ile Ser Gln Pro Ser Gly Asn
 85 90 95
 Pro Lys Lys Ile Ile Trp Met Asp Cys Gly Ile His Ala Arg Glu Trp
 100 105 110
 Ile Ala Pro Ala Phe Cys Gln Trp Phe Val Lys Glu Ile Leu Gln Asn
 115 120 125
 His Lys Asp Asn Ser Ser Ile Arg Lys Leu Leu Arg Asn Leu Asp Phe
 130 135 140

Tyr Val Leu Pro Val Leu Asn Ile Asp Gly Tyr Ile Tyr Thr Trp Thr
 145 150 155 160
 Thr Asp Arg Leu Trp Arg Lys Ser Arg Ser Pro His Asn Asn Gly Thr
 165 170 175
 Cys Phe Gly Thr Asp Leu Asn Arg Asn Phe Asn Ala Ser Trp Cys Ser
 180 185 190
 Ile Gly Ala Ser Arg Asn Cys Gln Asp Gln Thr Phe Cys Gly Thr Gly
 195 200 205
 Pro Val Ser Glu Pro Glu Thr Lys Ala Val Ala Ser Phe Ile Glu Ser
 210 215 220
 Lys Lys Asp Asp Ile Leu Cys Phe Leu Thr Met His Ser Tyr Gly Gln
 225 230 235 240
 Leu Ile Leu Thr Pro Tyr Gly Tyr Thr Lys Asn Lys Ser Ser Asn His
 245 250 255
 Pro Glu Met Ile Gln Val Gly Gln Lys Ala Ala Asn Ala Leu Lys Ala
 260 265 270
 Lys Tyr Gly Thr Asn Tyr Arg Val Gly Ser Ser Ala Asp Ile Leu Tyr
 275 280 285
 Ala Ser Ser Gly Ser Ser Arg Asp Trp Ala Arg Asp Ile Gly Ile Pro
 290 295 300
 Phe Ser Tyr Thr Phe Glu Leu Arg Asp Ser Gly Thr Tyr Gly Phe Val
 305 310 315 320
 Leu Pro Glu Ala Gln Ile Gln Pro Thr Cys Glu Glu Thr Met Glu Ala
 325 330 335
 Val Leu Ser Val Leu Asp Asp Val Tyr Ala Lys His Trp His Ser Asp
 340 345 350
 Ser Ala Gly Arg Val Thr Ser Ala Thr Met Leu Leu Gly Leu Leu Val
 355 360 365
 Ser Cys Met Ser Leu Leu
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<210> 62
 <211> 529
 <212> PRT
 <213> Homo sapiens

<400> 62
 Met Val Ser Asn Asp Ser His Thr Trp Val Thr Val Lys Asn Gly Ser
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 20 25 30

Asn Glu Leu Pro Val Pro Met Val Ala Arg Tyr Ile Arg Ile Asn Pro
 35 40 45
 Gln Ser Trp Phe Asp Asn Gly Ser Ile Cys Met Arg Met Glu Ile Leu
 50 55 60
 Gly Cys Pro Leu Pro Asp Pro Asn Asn Tyr Tyr His Arg Arg Asn Glu
 65 70 75 80
 Met Thr Thr Thr Asp Asp Leu Asp Phe Lys His His Asn Tyr Lys Glu
 85 90 95
 Met Arg Gln Leu Met Lys Val Val Asn Glu Met Cys Pro Asn Ile Thr
 100 105 110
 Arg Ile Tyr Asn Ile Gly Lys Ser His Gln Gly Leu Lys Leu Tyr Ala
 115 120 125
 Val Glu Ile Ser Asp His Pro Gly Glu His Glu Val Gly Glu Pro Glu
 130 135 140
 Phe His Tyr Ile Ala Gly Ala His Gly Asn Glu Val Leu Gly Arg Glu
 145 150 155 160
 Leu Leu Leu Leu Leu Val Gln Phe Val Cys Gln Glu Tyr Leu Ala Arg
 165 170 175
 Asn Ala Arg Ile Val His Leu Val Glu Glu Thr Arg Ile His Val Leu
 180 185 190
 Pro Ser Leu Asn Pro Asp Gly Tyr Glu Lys Ala Tyr Glu Gly Gly Ser
 195 200 205
 Glu Leu Gly Gly Trp Ser Leu Gly Arg Trp Thr His Asp Gly Ile Asp
 210 215 220
 Ile Asn Asn Asn Phe Pro Asp Leu Asn Thr Leu Leu Trp Glu Ala Glu
 225 230 235 240
 Asp Arg Gln Asn Val Pro Arg Lys Val Pro Asn His Tyr Ile Ala Ile
 245 250 255
 Pro Glu Trp Phe Leu Ser Glu Asn Ala Thr Val Ala Ala Glu Thr Arg
 260 265 270
 Ala Val Ile Ala Trp Met Glu Lys Ile Pro Phe Val Leu Gly Gly Asn
 275 280 285
 Leu Gln Gly Gly Glu Leu Val Val Ala Tyr Pro Tyr Asp Leu Val Arg
 290 295 300
 Ser Pro Trp Lys Thr Gln Glu His Thr Pro Thr Pro Asp Asp His Val
 305 310 315 320
 Phe Arg Trp Leu Ala Tyr Ser Tyr Ala Ser Thr His Arg Leu Met Thr
 325 330 335

Asp Ala Arg Arg Arg Val Cys His Thr Glu Asp Phe Gln Lys Glu Glu
 340 345 350
 Gly Thr Val Asn Gly Ala Ser Trp His Thr Val Ala Gly Ser Leu Asn
 355 360 365
 Asp Phe Ser Tyr Leu His Thr Asn Cys Phe Glu Leu Ser Ile Tyr Val
 370 375 380
 Gly Cys Asp Lys Tyr Pro His Glu Ser Gln Leu Pro Glu Glu Trp Glu
 385 390 395 400
 Asn Asn Arg Glu Ser Leu Ile Val Phe Met Glu Gln Val His Arg Gly
 405 410 415
 Ile Lys Gly Leu Val Arg Asp Ser His Gly Lys Gly Ile Pro Asn Ala
 420 425 430
 Ile Ile Ser Val Glu Gly Ile Asn His Asp Ile Arg Thr Ala Asn Asp
 435 440 445
 Gly Asp Tyr Trp Arg Leu Leu Asn Pro Gly Glu Tyr Val Val Thr Ala
 450 455 460
 Lys Ala Glu Gly Phe Thr Ala Ser Thr Lys Asn Cys Met Val Gly Tyr
 465 470 475 480
 Asp Met Gly Ala Thr Arg Cys Asp Phe Thr Leu Ser Lys Thr Asn Met
 485 490 495
 Ala Arg Ile Arg Glu Ile Met Glu Lys Phe Gly Lys Gln Pro Val Ser
 500 505 510
 Leu Pro Ala Arg Arg Leu Lys Leu Arg Gly Arg Lys Arg Arg Gln Arg
 515 520 525

Gly

<210> 63
 <211> 467
 <212> PRT
 <213> Homo sapiens

<400> 63
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 His Leu Ala Leu Gly Ala Gln Gln Gly Arg Gly Arg Arg Glu Leu Ala
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 Pro Gly Leu His Leu Arg Gly Ile Arg Asp Ala Gly Gly Arg Tyr Cys
 35 40 45
 Gln Glu Gln Asp Leu Cys Cys Arg Gly Arg Ala Asp Asp Cys Ala Leu
 50 55 60

Pro	Tyr	Leu	Gly	Ala	Ile	Cys	Tyr	Cys	Asp	Leu	Phe	Cys	Asn	Arg	Thr	65	70	75	80
Val	Ser	Asp	Cys	Cys	Pro	Asp	Phe	Trp	Asp	Phe	Cys	Leu	Gly	Val	Pro	85	90	95	
Pro	Pro	Phe	Pro	Pro	Ile	Gln	Gly	Cys	Met	His	Gly	Gly	Arg	Ile	Tyr	100	105	110	
Pro	Val	Leu	Gly	Thr	Tyr	Trp	Asp	Asn	Cys	Asn	Arg	Cys	Thr	Cys	Gln	115	120	125	
Glu	Asn	Arg	Gln	Trp	Gln	Cys	Asp	Gln	Glu	Pro	Cys	Leu	Val	Asp	Pro	130	135	140	
Asp	Met	Ile	Lys	Ala	Ile	Asn	Gln	Gly	Asn	Tyr	Gly	Trp	Gln	Ala	Gly	145	150	155	160
Asn	His	Ser	Ala	Phe	Trp	Gly	Met	Thr	Leu	Asp	Glu	Gly	Ile	Arg	Tyr	165	170	175	
Arg	Leu	Gly	Thr	Ile	Arg	Pro	Ser	Ser	Ser	Val	Met	Asn	Met	His	Glu	180	185	190	
Ile	Tyr	Thr	Val	Leu	Asn	Pro	Gly	Glu	Val	Leu	Pro	Thr	Ala	Phe	Glu	195	200	205	
Ala	Ser	Glu	Lys	Trp	Pro	Asn	Leu	Ile	His	Glu	Pro	Leu	Asp	Gln	Gly	210	215	220	
Asn	Cys	Ala	Gly	Ser	Trp	Ala	Phe	Ser	Thr	Ala	Ala	Val	Ala	Ser	Asp	225	230	235	240
Arg	Val	Ser	Ile	His	Ser	Leu	Gly	His	Met	Thr	Pro	Val	Leu	Ser	Pro	245	250	255	
Gln	Asn	Leu	Leu	Ser	Cys	Asp	Thr	His	Gln	Gln	Gln	Gly	Cys	Arg	Gly	260	265	270	
Gly	Arg	Leu	Asp	Gly	Ala	Trp	Trp	Phe	Leu	Arg	Arg	Arg	Gly	Val	Val	275	280	285	
Ser	Asp	His	Cys	Tyr	Pro	Phe	Ser	Gly	Arg	Glu	Arg	Asp	Glu	Ala	Gly	290	295	300	
Pro	Ala	Pro	Pro	Cys	Met	Met	His	Ser	Arg	Ala	Met	Gly	Arg	Gly	Lys	305	310	315	320
Arg	Gln	Ala	Thr	Ala	His	Cys	Pro	Asn	Ser	Tyr	Val	Asn	Asn	Asn	Asp	325	330	335	
Ile	Tyr	Gln	Val	Thr	Pro	Val	Tyr	Arg	Leu	Gly	Ser	Asn	Asp	Lys	Glu	340	345	350	
Ile	Met	Lys	Glu	Leu	Met	Glu	Asn	Gly	Pro	Val	Gln	Ala	Leu	Met	Glu	355	360	365	

Val His Glu Asp Phe Phe Leu Tyr Lys Gly Gly Ile Tyr Ser His Thr
 370 375 380

Pro Val Ser Leu Gly Arg Pro Glu Arg Tyr Arg Arg His Gly Thr His
 385 390 395 400

Ser Val Lys Ile Thr Gly Trp Gly Glu Glu Thr Leu Pro Asp Gly Arg
 405 410 415

Thr Leu Lys Tyr Trp Thr Ala Ala Asn Ser Trp Gly Pro Ala Trp Gly
 420 425 430

Glu Arg Gly His Phe Arg Ile Val Arg Gly Val Asn Glu Cys Asp Ile
 435 440 445

Glu Ser Phe Val Leu Gly Val Trp Gly Arg Val Gly Met Glu Asp Met
 450 455 460

Gly His His
 465

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 <211> 3353
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MOD_RES
 <222> (1891)
 <223> Any amino acid

<400> 64
 Met Cys Glu Asn Cys Ala Asp Leu Val Glu Val Leu Asn Glu Ile Ser
 1 5 10 15

Asp Val Glu Gly Gly Asp Gly Leu Gln Leu Arg Lys Glu His Thr Leu
 20 25 30

Lys Ile Phe Thr Tyr Ile Asn Ser Trp Thr Gln Arg Gln Cys Leu Cys
 35 40 45

Cys Phe Lys Glu Tyr Lys His Leu Glu Ile Phe Asn Gln Val Val Cys
 50 55 60

Ala Leu Ile Asn Leu Val Ile Ala Gln Val Gln Val Leu Arg Asp Gln
 65 70 75 80

Leu Cys Lys His Cys Thr Thr Ile Asn Ile Asp Ser Thr Trp Gln Asp
 85 90 95

Glu Ser Asn Gln Ala Glu Glu Pro Leu Asn Ile Asp Arg Glu Cys Asn
 100 105 110

Glu Gly Ser Thr Glu Arg Gln Lys Ser Ile Glu Lys Lys Ser Asn Ser
 115 120 125

Thr	Arg	Ile	Cys	Asn	Leu	Thr	Glu	Glu	Glu	Ser	Ser	Lys	Ser	Ser	Asp	130	135	140
Pro	Phe	Ser	Leu	Trp	Ser	Thr	Asp	Glu	Lys	Glu	Lys	Leu	Leu	Leu	Cys	145	150	155
Val	Ala	Lys	Ile	Phe	Gln	Ile	Gln	Phe	Pro	Leu	Tyr	Thr	Ala	Tyr	Lys	165	170	175
His	Asn	Thr	His	Pro	Thr	Ile	Glu	Asp	Ile	Ser	Thr	Gln	Glu	Ser	Asn	180	185	190
Ile	Leu	Gly	Ala	Phe	Cys	Asp	Met	Asn	Asp	Val	Glu	Val	Pro	Leu	His	195	200	205
Leu	Leu	Arg	Tyr	Val	Cys	Leu	Phe	Cys	Gly	Lys	Asn	Gly	Leu	Ser	Leu	210	215	220
Met	Lys	Asp	Cys	Phe	Glu	Tyr	Gly	Thr	Pro	Glu	Thr	Leu	Pro	Phe	Leu	225	230	235
Ile	Ala	His	Ala	Phe	Ile	Thr	Val	Val	Ser	Asn	Ile	Arg	Ile	Trp	Leu	245	250	255
His	Ile	Pro	Ala	Val	Met	Gln	His	Ile	Ile	Pro	Phe	Arg	Thr	Tyr	Val	260	265	270
Ile	Arg	Tyr	Leu	Cys	Lys	Leu	Ser	Asp	Gln	Glu	Leu	Arg	Gln	Ser	Ala	275	280	285
Ala	Arg	Asn	Met	Ala	Asp	Leu	Met	Trp	Ser	Thr	Val	Lys	Glu	Pro	Leu	290	295	300
Asp	Thr	Thr	Leu	Cys	Phe	Asp	Lys	Glu	Ser	Leu	Asp	Leu	Ala	Phe	Lys	305	310	315
Tyr	Phe	Met	Ser	Pro	Thr	Leu	Thr	Met	Arg	Leu	Ala	Gly	Leu	Ser	Gln	325	330	335
Ile	Thr	Asn	Gln	Leu	His	Thr	Phe	Asn	Asp	Val	Cys	Asn	Asn	Glu	Ser	340	345	350
Leu	Val	Ser	Asp	Thr	Glu	Thr	Ser	Ile	Ala	Lys	Glu	Leu	Ala	Asp	Trp	355	360	365
Leu	Ile	Ser	Asn	Asn	Val	Val	Glu	His	Ile	Phe	Gly	Pro	Asn	Leu	His	370	375	380
Ile	Glu	Ile	Ile	Lys	Gln	Cys	Gln	Val	Ile	Leu	Asn	Phe	Leu	Ala	Ala	385	390	395
Glu	Gly	Arg	Leu	Ser	Thr	Gln	His	Ile	Asp	Cys	Ile	Trp	Ala	Ala	Ala	405	410	415
Gln	Leu	Lys	His	Cys	Ser	Arg	Tyr	Ile	His	Asp	Leu	Phe	Pro	Ser	Leu	420	425	430

Ile Lys Asn Leu Asp Pro Val Pro Leu Arg His Leu Leu Asn Leu Val
 435 440 445
 Ser Ala Leu Glu Pro Ser Val His Thr Glu Gln Thr Leu Tyr Leu Ala
 450 455 460
 Ser Met Leu Ile Lys Ala Leu Trp Asn Asn Ala Leu Ala Ala Lys Ala
 465 470 475 480
 Gln Leu Ser Lys Gln Ser Ser Phe Ala Ser Leu Leu Asn Thr Asn Ile
 485 490 495
 Pro Ile Gly Asn Lys Lys Glu Glu Glu Glu Leu Arg Arg Thr Ala Pro
 500 505 510
 Ser Pro Trp Ser Pro Ala Ala Ser Pro Gln Ser Ser Asp Asn Ser Asp
 515 520 525
 Thr His Gln Ser Gly Gly Ser Asp Ile Glu Met Asp Glu Gln Leu Ile
 530 535 540
 Asn Arg Thr Lys His Val Gln Gln Arg Leu Ser Asp Thr Glu Glu Ser
 545 550 555 560
 Met Gln Gly Ser Ser Asp Glu Thr Ala Asn Ser Gly Glu Asp Gly Ser
 565 570 575
 Ser Gly Pro Gly Ser Ser Ser Gly His Ser Asp Gly Ser Ser Asn Glu
 580 585 590
 Val Asn Ser Ser His Ala Ser Gln Ser Ala Gly Ser Pro Gly Ser Glu
 595 600 605
 Val Gln Ser Glu Asp Ile Ala Asp Ile Glu Ala Leu Lys Glu Glu Asp
 610 615 620
 Glu Asp Asp Asp His Gly His Asn Pro Pro Lys Ser Ser Cys Gly Thr
 625 630 635 640
 Asp Leu Arg Asn Arg Lys Leu Glu Ser Gln Ala Gly Ile Cys Leu Gly
 645 650 655
 Asp Ser Gln Gly Thr Ser Glu Arg Asn Gly Thr Ser Ser Gly Thr Gly
 660 665 670
 Lys Asp Leu Val Phe Asn Thr Glu Ser Leu Pro Ser Val Asp Asn Arg
 675 680 685
 Met Arg Met Leu Asp Ala Cys Ser His Ser Glu Asp Pro Glu His Asp
 690 695 700
 Ile Ser Gly Glu Met Asn Ala Thr His Ile Ala Gln Gly Ser Gln Glu
 705 710 715 720
 Ser Cys Ile Thr Arg Thr Gly Asp Phe Leu Gly Glu Thr Ile Gly Asn
 725 730 735

Glu Leu Phe Asn Cys Arg Gln Phe Ile Gly Pro Gln His His His His
 740 745 750
 His His His His His His His His Asp Gly His Met Val Asp Asp Met
 755 760 765
 Leu Ser Ala Asp Asp Val Ser Cys Ser Ser Ser Gln Val Ser Ala Lys
 770 775 780
 Ser Glu Lys Asn Met Ala Asp Phe Asp Gly Glu Glu Ser Gly Cys Glu
 785 790 795 800
 Glu Glu Leu Val Gln Ile Asn Ser His Ala Glu Leu Thr Ser His Leu
 805 810 815
 Gln Gln His Leu Pro Asn Leu Ala Ser Ile Tyr His Glu His Leu Ser
 820 825 830
 Gln Gly Pro Val Val His Lys His Gln Phe Asn Ser Asn Ala Val Thr
 835 840 845
 Asp Ile Asn Leu Asp Asn Val Cys Lys Lys Gly Asn Thr Leu Leu Trp
 850 855 860
 Asp Ile Val Gln Asp Glu Asp Ala Val Asn Leu Ser Glu Gly Leu Ile
 865 870 875 880
 Asn Glu Ala Glu Lys Leu Leu Cys Ser Leu Val Cys Trp Phe Thr Asp
 885 890 895
 Arg Gln Ile Arg Met Arg Phe Ile Glu Gly Cys Leu Glu Asn Leu Gly
 900 905 910
 Asn Asn Arg Ser Val Val Ile Ser Leu Arg Leu Leu Pro Lys Leu Phe
 915 920 925
 Gly Thr Phe Gln Gln Phe Gly Ser Ser Tyr Asp Thr His Trp Ile Thr
 930 935 940
 Met Trp Ala Glu Lys Glu Leu Asn Met Met Lys Leu Phe Phe Asp Asn
 945 950 955 960
 Leu Val Tyr Tyr Ile Gln Thr Val Arg Glu Gly Arg Gln Lys His Ala
 965 970 975
 Leu Tyr Ser His Ser Ala Glu Val Gln Val Arg Leu Gln Phe Leu Thr
 980 985 990
 Cys Val Phe Ser Thr Leu Gly Ser Pro Asp His Phe Arg Leu Ser Leu
 995 1000 1005
 Glu Gln Val Asp Ile Leu Trp His Cys Leu Val Glu Asp Ser Glu Cys
 1010 1015 1020
 Tyr Asp Asp Ala Leu His Trp Phe Leu Asn Gln Val Arg Ser Lys Asp
 1025 1030 1035 1040

Gln His Ala Met Gly Met Glu Thr Tyr Lys His Leu Phe Leu Glu Lys
 1045 1050 1055
 Met Pro Gln Leu Lys Pro Glu Thr Ile Ser Met Thr Gly Leu Asn Leu
 1060 1065 1070
 Phe Gln His Leu Cys Asn Leu Ala Arg Leu Ala Thr Ser Ala Tyr Asp
 1075 1080 1085
 Gly Cys Ser Asn Ser Glu Leu Cys Gly Met Asp Gln Phe Trp Gly Ile
 1090 1095 1100
 Ala Leu Arg Ala Gln Ser Gly Asp Val Ser Arg Ala Ala Ile Gln Tyr
 1105 1110 1115 1120
 Ile Asn Ser Tyr Tyr Ile Asn Gly Lys Thr Gly Leu Glu Lys Glu Gln
 1125 1130 1135
 Glu Phe Ile Ser Lys Cys Met Glu Ser Leu Met Ile Ala Ser Ser Ser
 1140 1145 1150
 Leu Glu Gln Glu Ser His Ser Ser Leu Met Val Ile Glu Arg Gly Leu
 1155 1160 1165
 Leu Met Leu Lys Thr His Leu Glu Ala Phe Arg Arg Arg Phe Ala Tyr
 1170 1175 1180
 His Leu Arg Gln Trp Gln Ile Glu Gly Thr Gly Ile Ser Ser His Leu
 1185 1190 1195 1200
 Lys Ala Leu Ser Asp Lys Gln Ser Leu Pro Leu Arg Val Val Cys Gln
 1205 1210 1215
 Pro Ala Gly Leu Pro Asp Lys Met Thr Ile Glu Met Tyr Pro Ser Asp
 1220 1225 1230
 Gln Val Ala Asp Leu Arg Ala Glu Val Thr His Trp Tyr Glu Asn Leu
 1235 1240 1245
 Gln Lys Glu Gln Ile Asn Gln Gln Ala Gln Leu Gln Glu Phe Gly Gln
 1250 1255 1260
 Ser Asn Arg Lys Gly Glu Phe Pro Gly Gly Leu Met Gly Pro Val Arg
 1265 1270 1275 1280
 Met Ile Ser Ser Gly His Glu Leu Thr Thr Asp Tyr Asp Glu Lys Ala
 1285 1290 1295
 Leu His Glu Leu Gly Phe Lys Asp Met Gln Met Val Phe Val Ser Leu
 1300 1305 1310
 Gly Ala Pro Arg Arg Glu Arg Lys Gly Glu Gly Val Gln Leu Pro Ala
 1315 1320 1325
 Ser Cys Leu Pro Pro Pro Gln Lys Asp Asn Ile Pro Met Leu Leu Leu
 1330 1335 1340

Leu Gln Glu Pro His Leu Thr Thr Leu Phe Asp Leu Leu Glu Met Leu
 1345 1350 1355 1360
 Ala Ser Phe Lys Pro Pro Ser Gly Lys Val Ala Val Asp Asp Ser Glu
 1365 1370 1375
 Ser Leu Arg Cys Glu Glu Leu His Leu His Ala Glu Asn Leu Ser Arg
 1380 1385 1390
 Arg Val Trp Glu Leu Leu Met Leu Leu Pro Thr Cys Pro Asn Met Leu
 1395 1400 1405
 Met Ala Phe Gln Asn Ile Ser Asp Glu Gln Ser Phe Lys Ala Gln Ser
 1410 1415 1420
 Asp His Arg Ser Arg His Glu Val Ser His Tyr Ser Met Trp Leu Leu
 1425 1430 1435 1440
 Val Ser Trp Ala His Cys Cys Ser Leu Val Lys Ser Ser Leu Ala Asp
 1445 1450 1455
 Ser Asp His Leu Gln Asp Trp Leu Lys Lys Leu Thr Leu Leu Ile Pro
 1460 1465 1470
 Glu Thr Ala Val Arg His Glu Ser Cys Ser Gly Leu Tyr Lys Leu Ser
 1475 1480 1485
 Leu Ser Gly Leu Asp Gly Gly Asp Ser Ile Asn Arg Ser Phe Leu Leu
 1490 1495 1500
 Leu Ala Ala Ser Thr Leu Leu Lys Phe Leu Pro Asp Ala Gln Ala Leu
 1505 1510 1515 1520
 Lys Pro Ile Arg Ile Asp Asp Tyr Glu Glu Glu Pro Ile Leu Lys Pro
 1525 1530 1535
 Gly Cys Lys Glu Tyr Phe Trp Leu Leu Cys Lys Leu Val Asp Asn Ile
 1540 1545 1550
 His Ile Lys Asp Ala Ser Gln Thr Thr Leu Leu Asp Leu Asp Ala Leu
 1555 1560 1565
 Ala Arg His Leu Ala Asp Cys Ile Arg Ser Arg Glu Ile Leu Asp His
 1570 1575 1580
 Gln Asp Gly Asn Val Glu Asp Asp Gly Leu Thr Gly Leu Leu Arg Leu
 1585 1590 1595 1600
 Ala Thr Ser Val Val Lys His Lys Pro Pro Phe Lys Phe Ser Arg Glu
 1605 1610 1615
 Gly Gln Glu Phe Leu Arg Asp Ile Phe Asn Leu Leu Phe Leu Leu Pro
 1620 1625 1630
 Ser Leu Lys Asp Arg Gln Gln Pro Lys Cys Lys Ser His Ser Ser Arg
 1635 1640 1645

Ala Ala Ala Tyr Asp Leu Leu Val Glu Met Val Lys Gly Ser Val Glu
 1650 1655 1660
 Asn Tyr Arg Leu Ile His Asn Trp Val Met Ala Gln His Met Gln Ser
 1665 1670 1675 1680
 His Ala Pro Tyr Lys Trp Asp Tyr Trp Pro His Glu Asp Val Arg Ala
 1685 1690 1695
 Glu Cys Arg Phe Val Gly Leu Thr Asn Leu Gly Ala Thr Cys Tyr Leu
 1700 1705 1710
 Ala Ser Thr Ile Gln Gln Leu Tyr Met Ile Pro Glu Ala Arg Gln Ala
 1715 1720 1725
 Val Phe Thr Ala Lys Tyr Ser Glu Asp Met Lys His Lys Thr Thr Leu
 1730 1735 1740
 Leu Glu Leu Gln Lys Met Phe Thr Tyr Leu Met Glu Ser Glu Cys Lys
 1745 1750 1755 1760
 Ala Tyr Asn Pro Arg Pro Phe Cys Lys Thr Tyr Thr Met Asp Lys Gln
 1765 1770 1775
 Pro Leu Asn Thr Gly Glu Gln Lys Asp Met Thr Glu Phe Phe Thr Asp
 1780 1785 1790
 Leu Ile Thr Lys Ile Glu Glu Met Ser Pro Glu Leu Lys Asn Thr Val
 1795 1800 1805
 Lys Ser Leu Phe Gly Gly Val Ile Thr Asn Asn Val Val Ser Leu Asp
 1810 1815 1820
 Cys Glu His Val Ser Gln Thr Ala Glu Glu Phe Tyr Thr Val Arg Cys
 1825 1830 1835 1840
 Gln Val Ala Asp Met Lys Asn Ile Tyr Glu Ser Leu Asp Glu Val Thr
 1845 1850 1855
 Ile Lys Asp Thr Leu Glu Gly Asp Asn Met Tyr Thr Cys Ser Gln Cys
 1860 1865 1870
 Gly Lys Lys Val Arg Ala Glu Lys Arg Ala Cys Phe Lys Lys Leu Pro
 1875 1880 1885
 Arg Ile Xaa Ser Phe Asn Thr Met Arg Tyr Thr Phe Asn Met Val Thr
 1890 1895 1900
 Met Met Lys Glu Lys Val Asn Thr His Phe Ser Phe Pro Leu Arg Leu
 1905 1910 1915 1920
 Asp Met Thr Pro Tyr Thr Glu Asp Phe Leu Met Gly Lys Ser Glu Arg
 1925 1930 1935
 Lys Glu Gly Phe Lys Glu Val Ser Asp His Ser Lys Asp Ser Glu Ser
 1940 1945 1950

Tyr Glu Tyr Asp Leu Ile Gly Val Thr Val His Thr Gly Thr Ala Asp
 1955 1960 1965

Gly Gly His Tyr Tyr Ser Phe Ile Arg Asp Ile Val Asn Pro His Ala
 1970 1975 1980

Tyr Lys Asn Asn Lys Trp Tyr Leu Phe Asn Asp Ala Glu Val Lys Pro
 1985 1990 1995 2000

Phe Asp Ser Ala Gln Leu Ala Ser Glu Cys Phe Gly Gly Glu Met Thr
 2005 2010 2015

Thr Lys Thr Tyr Asp Ser Val Thr Asp Lys Phe Met Asp Phe Ser Phe
 2020 2025 2030

Glu Lys Thr His Ser Ala Tyr Met Leu Phe Tyr Lys Arg Met Glu Pro
 2035 2040 2045

Glu Glu Glu Asn Gly Arg Glu Tyr Lys Phe Asp Val Ser Ser Glu Leu
 2050 2055 2060

Leu Glu Trp Ile Trp His Asp Asn Met Gln Phe Leu Gln Asp Lys Asn
 2065 2070 2075 2080

Ile Phe Glu His Thr Tyr Phe Gly Phe Met Trp Gln Leu Cys Ser Cys
 2085 2090 2095

Ile Pro Ser Thr Leu Pro Asp Pro Lys Ala Val Ser Leu Met Thr Ala
 2100 2105 2110

Lys Leu Ser Thr Ser Phe Val Leu Glu Thr Phe Ile His Ser Lys Glu
 2115 2120 2125

Lys Pro Thr Met Leu Gln Trp Ile Glu Leu Leu Thr Lys Gln Phe Asn
 2130 2135 2140

Asn Ser Gln Ala Ala Cys Glu Trp Phe Leu Asp Arg Met Ala Asp Asp
 2145 2150 2155 2160

Asp Trp Trp Pro Met Gln Ile Leu Ile Lys Cys Pro Asn Gln Ile Val
 2165 2170 2175

Arg Gln Met Phe Gln Arg Leu Cys Ile His Val Ile Gln Arg Leu Arg
 2180 2185 2190

Pro Val His Ala His Leu Tyr Leu Gln Pro Gly Met Glu Asp Gly Ser
 2195 2200 2205

Asp Asp Met Asp Thr Ser Val Glu Asp Ile Gly Gly Arg Ser Cys Val
 2210 2215 2220

Thr Arg Phe Val Arg Thr Leu Leu Leu Ile Met Glu His Gly Val Lys
 2225 2230 2235 2240

Pro His Ser Lys His Leu Thr Glu Tyr Phe Ala Phe Leu Tyr Glu Phe
 2245 2250 2255

Ala Lys Met Gly Glu Glu Glu Ser Gln Phe Leu Leu Ser Leu Gln Ala
 2260 2265 2270
 Ile Ser Thr Met Val His Phe Tyr Met Gly Thr Lys Gly Pro Glu Asn
 2275 2280 2285
 Pro Gln Val Glu Val Leu Ser Glu Glu Glu Gly Gly Glu Glu Glu Glu
 2290 2295 2300
 Glu Glu Asp Ile Leu Ser Leu Ala Glu Glu Lys Tyr Arg Pro Ala Ala
 2305 2310 2315 2320
 Leu Glu Lys Met Ile Ala Leu Val Ala Leu Leu Val Glu Gln Ser Arg
 2325 2330 2335
 Ser Glu Arg His Leu Thr Leu Ser Gln Thr Asp Met Ala Ala Leu Thr
 2340 2345 2350
 Gly Gly Lys Gly Phe Pro Phe Leu Phe Gln His Ile Arg Asp Gly Ile
 2355 2360 2365
 Asn Ile Arg Gln Thr Cys Asn Leu Ile Phe Ser Leu Cys Arg Tyr Asn
 2370 2375 2380
 Asn Arg Leu Ala Glu His Ile Val Ser Met Leu Phe Thr Ser Ile Ala
 2385 2390 2395 2400
 Lys Leu Thr Pro Glu Ala Ala Asn Pro Phe Phe Lys Leu Leu Thr Met
 2405 2410 2415
 Leu Met Glu Phe Ala Gly Gly Pro Pro Gly Met Pro Pro Phe Ala Ser
 2420 2425 2430
 Tyr Ile Leu Gln Arg Ile Trp Glu Val Ile Glu Tyr Asn Pro Ser Gln
 2435 2440 2445
 Cys Leu Asp Trp Leu Ala Val Gln Thr Pro Arg Asn Lys Leu Ala His
 2450 2455 2460
 Ser Trp Val Leu Gln Asn Met Glu Asn Trp Val Glu Arg Phe Leu Leu
 2465 2470 2475 2480
 Ala His Asn Tyr Pro Arg Val Arg Thr Ser Ala Ala Tyr Leu Leu Val
 2485 2490 2495
 Ser Leu Ile Pro Ser Asn Ser Phe Arg Gln Met Phe Arg Ser Thr Arg
 2500 2505 2510
 Ser Leu His Ile Pro Thr Arg Asp Leu Pro Leu Ser Pro Asp Thr Thr
 2515 2520 2525
 Val Val Leu His Gln Val Tyr Asn Val Leu Leu Gly Leu Leu Ser Arg
 2530 2535 2540
 Ala Lys Leu Tyr Val Asp Ala Ala Val His Gly Thr Thr Lys Leu Val
 2545 2550 2555 2560

Pro	Tyr	Phe	Ser	Phe	Met	Thr	Tyr	Cys	Leu	Ile	Ser	Lys	Thr	Glu	Lys	
					2565					2570					2575	
Leu	Met	Phe	Ser	Thr	Tyr	Phe	Met	Asp	Leu	Trp	Asn	Leu	Phe	Gln	Pro	
			2580					2585					2590			
Lys	Leu	Ser	Glu	Pro	Ala	Ile	Ala	Thr	Asn	His	Asn	Lys	Gln	Ala	Leu	
		2595					2600					2605				
Leu	Ser	Phe	Trp	Tyr	Asn	Val	Cys	Ala	Asp	Cys	Pro	Glu	Asn	Ile	Arg	
	2610					2615					2620					
Leu	Ile	Val	Gln	Asn	Pro	Val	Val	Thr	Lys	Asn	Ile	Ala	Phe	Asn	Tyr	
2625					2630					2635					2640	
Ile	Leu	Ala	Asp	His	Asp	Asp	Gln	Asp	Val	Val	Leu	Phe	Asn	Arg	Gly	
				2645					2650					2655		
Met	Leu	Pro	Ala	Tyr	Tyr	Gly	Ile	Leu	Arg	Leu	Cys	Cys	Glu	Gln	Ser	
			2660					2665					2670			
Pro	Ala	Phe	Thr	Arg	Gln	Leu	Ala	Ser	His	Gln	Asn	Ile	Gln	Trp	Ala	
		2675					2680					2685				
Phe	Lys	Asn	Leu	Thr	Pro	His	Ala	Ser	Gln	Tyr	Pro	Gly	Ala	Val	Glu	
	2690					2695					2700					
Glu	Leu	Phe	Asn	Leu	Met	Gln	Leu	Phe	Ile	Ala	Gln	Arg	Pro	Asp	Met	
2705					2710					2715					2720	
Arg	Glu	Glu	Glu	Leu	Glu	Asp	Ile	Lys	Gln	Phe	Lys	Lys	Thr	Thr	Ile	
				2725					2730					2735		
Ser	Cys	Tyr	Leu	Arg	Cys	Leu	Asp	Gly	Arg	Ser	Cys	Trp	Thr	Thr	Leu	
			2740					2745					2750			
Ile	Ser	Ala	Phe	Arg	Ile	Leu	Leu	Glu	Ser	Asp	Glu	Asp	Arg	Leu	Leu	
		2755					2760					2765				
Val	Val	Phe	Asn	Arg	Gly	Leu	Ile	Leu	Met	Thr	Glu	Ser	Phe	Asn	Thr	
	2770					2775					2780					
Leu	His	Met	Met	Tyr	His	Glu	Ala	Thr	Ala	Cys	His	Val	Thr	Gly	Asp	
2785					2790					2795					2800	
Leu	Val	Glu	Leu	Leu	Ser	Ile	Phe	Leu	Ser	Val	Leu	Lys	Ser	Thr	Arg	
				2805					2810					2815		
Pro	Tyr	Leu	Gln	Arg	Lys	Asp	Val	Lys	Gln	Ala	Leu	Ile	Gln	Trp	Gln	
			2820					2825					2830			
Glu	Arg	Ile	Glu	Phe	Ala	His	Lys	Leu	Leu	Thr	Leu	Leu	Asn	Ser	Tyr	
		2835					2840					2845				
Ser	Pro	Pro	Glu	Leu	Arg	Asn	Ala	Cys	Ile	Asp	Val	Leu	Lys	Glu	Leu	
	2850					2855					2860					

Val Leu Leu Ser Pro His Asp Phe Leu His Thr Leu Val Pro Phe Leu
 2865 2870 2875 2880
 Gln His Asn His Cys Thr Tyr His His Ser Asn Ile Pro Met Ser Leu
 2885 2890 2895
 Gly Pro Tyr Phe Pro Cys Arg Glu Asn Ile Lys Leu Ile Gly Gly Lys
 2900 2905 2910
 Ser Asn Ile Arg Pro Pro Arg Pro Glu Leu Asn Met Cys Leu Leu Pro
 2915 2920 2925
 Thr Met Val Glu Thr Ser Lys Gly Lys Asp Asp Val Tyr Asp Arg Met
 2930 2935 2940
 Leu Leu Asp Tyr Phe Phe Ser Tyr His Gln Phe Ile His Leu Leu Cys
 2945 2950 2955 2960
 Arg Val Ala Ile Asn Cys Glu Lys Phe Thr Glu Thr Leu Val Lys Leu
 2965 2970 2975
 Ser Val Leu Val Ala Tyr Glu Gly Leu Pro Leu His Leu Ala Leu Phe
 2980 2985 2990
 Pro Lys Leu Trp Thr Glu Leu Cys Gln Thr Gln Ser Ala Met Ser Lys
 2995 3000 3005
 Asn Cys Ile Lys Leu Leu Cys Glu Asp Pro Val Phe Ala Glu Tyr Ile
 3010 3015 3020
 Lys Cys Ile Leu Met Asp Glu Arg Thr Phe Leu Asn Asn Asn Ile Val
 3025 3030 3035 3040
 Tyr Thr Phe Met Thr His Phe Leu Leu Lys Val Gln Ser Gln Val Phe
 3045 3050 3055
 Ser Glu Ala Asn Cys Ala Asn Leu Ile Ser Thr Leu Ile Thr Asn Leu
 3060 3065 3070
 Ile Ser Gln Tyr Gln Asn Leu Gln Ser Asp Phe Ser Asn Arg Val Glu
 3075 3080 3085
 Ile Ser Lys Ala Ser Ala Ser Leu Asn Gly Asp Leu Arg Ala Leu Ala
 3090 3095 3100
 Leu Leu Leu Ser Val His Thr Pro Lys Gln Leu Asn Pro Ala Leu Ile
 3105 3110 3115 3120
 Pro Thr Leu Gln Glu Leu Leu Ser Lys Cys Arg Thr Cys Leu Gln Gln
 3125 3130 3135
 Arg Asn Ser Leu Gln Glu Gln Glu Ala Lys Glu Arg Lys Thr Lys Asp
 3140 3145 3150
 Asp Glu Gly Ala Thr Pro Ile Lys Arg Arg Arg Val Ser Ser Asp Glu
 3155 3160 3165

Glu His Thr Val Asp Ser Cys Ile Ser Asp Met Lys Thr Glu Thr Arg
 3170 3175 3180

Glu Val Leu Thr Pro Thr Ser Thr Ser Asp Asn Glu Thr Arg Asp Ser
 3185 3190 3195 3200

Ser Ile Ile Asp Pro Gly Thr Glu Gln Asp Leu Pro Ser Pro Glu Asn
 3205 3210 3215

Ser Ser Val Lys Glu Tyr Arg Met Glu Val Pro Ser Ser Phe Ser Glu
 3220 3225 3230

Asp Met Ser Asn Ile Arg Ser Gln His Ala Glu Glu Gln Ser Asn Asn
 3235 3240 3245

Gly Arg Tyr Asp Asp Cys Lys Glu Phe Lys Asp Leu His Cys Ser Lys
 3250 3255 3260

Asp Ser Thr Leu Ala Glu Glu Glu Ser Glu Phe Pro Ser Thr Ser Ile
 3265 3270 3275 3280

Ser Ala Val Leu Ser Asp Leu Ala Asp Leu Arg Ser Cys Asp Gly Gln
 3285 3290 3295

Ala Leu Pro Ser Gln Asp Pro Glu Val Ala Leu Ser Leu Ser Cys Gly
 3300 3305 3310

His Ser Arg Gly Leu Phe Ser His Met Gln Gln His Asp Ile Leu Asp
 3315 3320 3325

Thr Leu Cys Arg Thr Ile Glu Ser Thr Ile His Val Val Thr Arg Ile
 3330 3335 3340

Ser Gly Lys Gly Asn Gln Ala Ala Ser
 3345 3350

<210> 65

<211> 980

<212> PRT

<213> Homo sapiens

<400> 65

Met Ser Pro Leu Lys Ile His Gly Pro Ile Arg Ile Arg Ser Met Gln
 1 5 10 15

Thr Gly Ile Thr Lys Trp Lys Glu Gly Ser Phe Glu Ile Val Glu Lys
 20 25 30

Glu Asn Lys Val Ser Leu Val Val His Tyr Asn Thr Gly Gly Ile Pro
 35 40 45

Arg Ile Phe Gln Leu Ser His Asn Ile Lys Asn Val Val Leu Arg Pro
 50 55 60

Ser Gly Ala Lys Gln Ser Arg Leu Met Leu Thr Leu Gln Asp Asn Ser
 65 70 75 80

Phe	Leu	Ser	Ile	Asp 85	Lys	Val	Pro	Ser	Lys	Asp	Ala	Glu	Glu	Met	Arg
Leu	Phe	Leu	Asp 100	Ala	Val	His	Gln	Asn 105	Arg	Leu	Pro	Ala	Ala 110	Met	Lys
Pro	Ser	Gln 115	Gly	Ser	Gly	Ser	Phe 120	Gly	Ala	Ile	Leu	Gly 125	Ser	Arg	Thr
Ser	Gln 130	Lys	Glu	Thr	Ser	Arg 135	Gln	Leu	Ser	Tyr	Ser 140	Asp	Asn	Gln	Ala
Ser 145	Ala	Lys	Arg	Gly	Ser 150	Leu	Glu	Thr	Lys	Asp 155	Asp	Ile	Pro	Phe	Arg
Lys	Val	Leu	Gly 165	Asn	Pro	Gly	Arg	Gly	Ser 170	Ile	Lys	Thr	Val	Ala 175	Gly
Ser	Gly	Ile	Ala 180	Arg	Thr	Ile	Pro	Ser 185	Leu	Thr	Ser	Thr	Ser 190	Thr	Pro
Leu	Arg 195	Ser	Gly	Leu	Leu	Glu	Asn 200	Arg	Thr	Glu	Lys 205	Arg	Lys	Arg	Met
Ile 210	Ser	Thr	Gly	Ser	Glu	Leu 215	Asn	Glu	Asp	Tyr	Pro 220	Lys	Glu	Asn	Asp
Ser 225	Ser	Ser	Asn	Asn 230	Lys	Ala	Met	Thr	Asp	Pro 235	Ser	Arg	Lys	Tyr	Leu 240
Thr	Ser	Ser	Arg 245	Glu	Lys	Gln	Leu	Ser 250	Leu	Lys	Gln	Ser	Glu 255	Glu	Asn
Arg	Thr	Ser	Gly 260	Gly	Leu	Leu	Pro	Leu 265	Gln	Ser	Ser	Ser	Phe 270	Tyr	Gly
Ser	Arg 275	Ala	Gly	Ser	Lys	Glu	His 280	Ser	Ser	Gly	Gly	Thr 285	Asn	Leu	Asp
Arg	Thr 290	Asn	Val	Ser	Ser	Gln 295	Thr	Pro	Ser	Ala	Lys 300	Arg	Ser	Leu	Gly
Phe 305	Leu	Pro	Gln	Pro	Val 310	Pro	Leu	Ser	Val	Lys 315	Lys	Leu	Arg	Cys	Asn 320
Gln	Asp	Tyr	Thr 325	Gly	Trp	Asn	Lys	Pro	Arg 330	Val	Pro	Leu	Ser 335	Ser	His
Gln	Gln	Gln	Gln 340	Leu	Gln	Gly	Phe	Ser 345	Asn	Leu	Gly	Asn	Thr 350	Cys	Tyr
Met	Asn	Ala 355	Ile	Leu	Gln	Ser	Leu 360	Phe	Ser	Leu	Gln	Ser 365	Phe	Ala	Asn
Asp	Leu 370	Leu	Lys	Gln	Gly	Ile 375	Pro	Trp	Lys	Lys	Ile 380	Pro	Leu	Asn	Ala

Leu Ile Arg Arg Phe Ala His Leu Leu Val Lys Lys Asp Ile Cys Asn
 385 390 395 400
 Ser Glu Thr Lys Lys Asp Leu Leu Lys Lys Val Lys Asn Ala Ile Ser
 405 410 415
 Ala Thr Ala Glu Arg Phe Ser Gly Tyr Met Gln Asn Asp Ala His Glu
 420 425 430
 Phe Leu Ser Gln Cys Leu Asp Gln Leu Lys Glu Asp Met Glu Lys Leu
 435 440 445
 Asn Lys Thr Trp Lys Thr Glu Pro Val Ser Gly Glu Glu Asn Ser Pro
 450 455 460
 Asp Ile Ser Ala Thr Arg Ala Tyr Thr Cys Pro Val Ile Thr Asn Leu
 465 470 475 480
 Glu Phe Glu Val Gln His Ser Ile Ile Cys Lys Ala Cys Gly Glu Ile
 485 490 495
 Ile Pro Lys Arg Glu Gln Phe Asn Asp Leu Ser Ile Asp Leu Pro Arg
 500 505 510
 Arg Lys Lys Pro Leu Pro Pro Arg Ser Ile Gln Asp Ser Leu Asp Leu
 515 520 525
 Phe Phe Arg Ala Glu Glu Leu Glu Tyr Ser Cys Glu Lys Cys Gly Gly
 530 535 540
 Lys Cys Ala Leu Val Arg His Lys Phe Asn Arg Leu Pro Arg Val Leu
 545 550 555 560
 Ile Leu His Leu Lys Arg Tyr Ser Phe Asn Val Ala Leu Ser Leu Asn
 565 570 575
 Asn Lys Ile Gly Gln Gln Val Ile Ile Pro Arg Tyr Leu Thr Leu Ser
 580 585 590
 Ser His Cys Thr Glu Asn Thr Lys Pro Pro Phe Thr Leu Gly Trp Ser
 595 600 605
 Ala His Met Ala Met Ser Arg Pro Leu Lys Ala Ser Gln Met Val Asn
 610 615 620
 Ser Cys Ile Thr Ser Pro Ser Thr Pro Ser Lys Lys Phe Thr Phe Lys
 625 630 635 640
 Ser Lys Ser Ser Leu Ala Leu Cys Leu Asp Ser Asp Ser Glu Asp Glu
 645 650 655
 Leu Lys Arg Ser Val Ala Leu Ser Gln Arg Leu Cys Glu Met Leu Gly
 660 665 670
 Asn Glu Gln Gln Gln Glu Asp Leu Glu Lys Asp Ser Lys Leu Cys Pro
 675 680 685

Ile Glu Pro Asp Lys Ser Glu Leu Glu Asn Ser Gly Phe Asp Arg Met
 690 695 700
 Ser Glu Glu Glu Leu Leu Ala Ala Val Leu Glu Ile Ser Lys Arg Asp
 705 710 715 720
 Ala Ser Pro Ser Leu Ser His Glu Asp Asp Asp Lys Pro Thr Ser Ser
 725 730 735
 Pro Asp Thr Gly Phe Ala Glu Asp Asp Ile Gln Glu Met Pro Glu Asn
 740 745 750
 Pro Asp Thr Met Glu Thr Glu Lys Pro Lys Thr Ile Thr Glu Leu Asp
 755 760 765
 Pro Ala Ser Phe Thr Glu Ile Thr Lys Asp Cys Asp Glu Asn Lys Glu
 770 775 780
 Asn Lys Thr Pro Glu Gly Ser Gln Gly Glu Val Asp Trp Leu Gln Gln
 785 790 795 800
 Tyr Asp Met Glu Arg Glu Arg Glu Glu Gln Glu Leu Gln Gln Ala Leu
 805 810 815
 Ala Gln Ser Leu Gln Glu Gln Glu Ala Trp Glu Gln Lys Glu Asp Asp
 820 825 830
 Asp Leu Lys Arg Ala Thr Glu Leu Ser Leu Gln Glu Phe Asn Asn Ser
 835 840 845
 Phe Val Asp Ala Leu Gly Ser Asp Glu Asp Ser Gly Asn Glu Asp Val
 850 855 860
 Phe Asp Met Glu Tyr Thr Glu Ala Glu Ala Glu Glu Leu Lys Arg Asn
 865 870 875 880
 Ala Glu Thr Gly Asn Leu Pro His Ser Tyr Arg Leu Ile Ser Val Val
 885 890 895
 Ser His Ile Gly Ser Thr Ser Ser Ser Gly His Tyr Ile Ser Asp Val
 900 905 910
 Tyr Asp Ile Lys Lys Gln Ala Trp Phe Thr Tyr Asn Asp Leu Glu Val
 915 920 925
 Ser Lys Ile Gln Glu Ala Ala Val Gln Ser Asp Arg Asp Arg Ser Gly
 930 935 940
 Tyr Ile Phe Phe Tyr Met His Lys Glu Ile Phe Asp Glu Leu Leu Glu
 945 950 955 960
 Thr Glu Lys Asn Ser Gln Ser Leu Ser Thr Glu Val Gly Lys Thr Thr
 965 970 975
 Arg Gln Ala Ser
 980

<210> 66
 <211> 953
 <212> PRT
 <213> Homo sapiens

<400> 66

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Met Thr Leu Leu Ala Pro Trp Tyr Thr Gly Pro Met Ile Pro Met Asp
 1              5              10              15

Val Asn Glu Pro Ser Ser Val Thr Thr Ala Pro Thr Leu Ser Ser Ser
      20              25              30

Leu Gln His Ile Ser Ser Phe Leu Ala Thr Gly Lys Lys Leu Ser Leu
      35              40              45

His Phe Gly His Pro Arg Glu Cys Glu Val Thr Arg Ile Asp Asp Lys
      50              55              60

Asn Arg Arg Gly Leu Glu Asp Ser Glu Pro Gly Ala Lys Leu Phe Asn
      65              70              75              80

Asn Asp Gly Val Cys Cys Cys Leu Gln Lys Arg Gly Pro Val Asn Ile
      85              90              95

Thr Ser Val Cys Val Ser Pro Arg Thr Leu Gln Ile Ser Val Phe Val
      100              105              110

Leu Ser Glu Lys Tyr Glu Gly Ile Val Lys Phe Glu Ser Asp Glu Leu
      115              120              125

Pro Phe Gly Val Ile Gly Ser Asn Ile Gly Asp Ala His Phe Gln Glu
      130              135              140

Phe Arg Ala Gly Ile Ser Trp Lys Pro Val Val Asp Pro Asp Asp Pro
      145              150              155              160

Ile Pro Gln Phe Pro Asp Cys Cys Ser Ser Ser Ser Ser Arg Ile Pro
      165              170              175

Ser Val Ser Val Leu Val Ala Val Pro Leu Val Ala Gly His Lys Gly
      180              185              190

Gln Ala Phe Ile Glu Arg Met Leu Gly Cys Phe Lys Glu Leu Lys Gln
      195              200              205

Glu Leu Thr Gln Glu Gly Pro Gly Gly Gly His Pro Arg Ser Ala Trp
      210              215              220

Pro Pro Arg Arg His Ala Gln Trp Pro Pro Glu Pro Cys Glu Gln Gly
      225              230              235              240

Glu Glu Pro Pro Pro Val Glu Ala Glu Glu Val Glu Glu Ala Glu Thr
      245              250              255

Ala Glu Lys Ala Glu Arg Lys Val Glu Ala Glu Ala Lys Val Glu Gly
      260              265              270

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Lys Ala Glu Ala Ala Gly Lys Ala Glu Ala Ala Gly Lys Val Asp Ala
 275 280 285
 Thr Glu Lys Val Glu Thr Ala Gly Lys Val Asp Ala Ala Gly Lys Val
 290 295 300
 Glu Thr Ala Glu Gly Pro Gly Arg Arg Ala Glu Leu Lys Leu Glu Pro
 305 310 315 320
 Glu Pro Glu Pro Val Arg Glu Ala Glu Gln Glu Pro Lys Gln Glu Leu
 325 330 335
 Glu Asp Glu Asn Pro Ala Arg Ser Gly Gly Gly Gly Asn Ser Asp Glu
 340 345 350
 Val Pro Pro Pro Thr Leu Pro Ser Asp Pro Pro Arg Pro Pro Asp Pro
 355 360 365
 Ser Pro Arg Arg Ser Arg Ala Pro Arg Arg Arg Pro Arg Pro Arg Pro
 370 375 380
 Gln Thr Arg Leu Arg Thr Pro Pro Gln Pro Arg Pro Arg Pro Pro Pro
 385 390 395 400
 Arg Pro Arg Pro Arg Arg Gly Pro Gly Gly Gly Cys Leu Asp Val Asp
 405 410 415
 Phe Ala Val Gly Pro Pro Gly Cys Ser His Val Asn Ser Phe Lys Val
 420 425 430
 Gly Glu Asn Trp Arg Gln Glu Leu Arg Val Ile Tyr Gln Cys Phe Val
 435 440 445
 Trp Cys Gly Thr Pro Glu Thr Arg Lys Ser Lys Ala Lys Ser Cys Ile
 450 455 460
 Cys His Val Cys Gly Thr His Leu Asn Arg Leu His Ser Cys Leu Ser
 465 470 475 480
 Cys Val Phe Phe Gly Cys Phe Thr Glu Lys His Ile His Glu His Ala
 485 490 495
 Glu Thr Lys Gln His Asn Leu Ala Val Asp Leu Tyr Tyr Gly Gly Ile
 500 505 510
 Tyr Cys Phe Met Cys Lys Asp Tyr Val Tyr Asp Lys Asp Ile Glu Gln
 515 520 525
 Ile Ala Lys Glu Glu Gln Gly Glu Ala Leu Lys Leu Gln Ala Ser Thr
 530 535 540
 Ser Thr Glu Val Ser His Gln Gln Cys Ser Val Pro Gly Leu Gly Glu
 545 550 555 560
 Lys Phe Pro Thr Trp Glu Thr Thr Lys Pro Glu Leu Glu Leu Leu Gly
 565 570 575

His Asn Pro Arg Arg Arg Arg Ile Thr Ser Ser Phe Thr Ile Gly Leu
 580 585 590
 Arg Gly Leu Ile Asn Leu Gly Asn Thr Cys Phe Met Asn Cys Ile Val
 595 600 605
 Gln Ala Leu Thr His Thr Pro Ile Leu Arg Asp Phe Phe Leu Ser Asp
 610 615 620
 Arg His Arg Cys Glu Met Pro Ser Pro Glu Leu Cys Leu Val Cys Glu
 625 630 635 640
 Met Ser Ser Leu Phe Arg Glu Leu Tyr Ser Gly Asn Pro Ser Pro His
 645 650 655
 Val Pro Tyr Lys Leu Leu His Leu Val Trp Ile His Ala Arg His Leu
 660 665 670
 Ala Gly Tyr Arg Gln Gln Asp Ala His Glu Phe Leu Ile Ala Ala Leu
 675 680 685
 Asp Val Leu His Arg His Cys Lys Gly Asp Asp Val Gly Lys Ala Ala
 690 695 700
 Asn Asn Pro Asn His Cys Asn Cys Ile Ile Asp Gln Ile Phe Thr Gly
 705 710 715 720
 Gly Leu Gln Ser Asp Val Thr Cys Gln Ala Cys His Gly Val Ser Thr
 725 730 735
 Thr Ile Asp Pro Cys Trp Asp Ile Ser Leu Asp Leu Pro Gly Ser Cys
 740 745 750
 Thr Ser Phe Trp Pro Met Ser Pro Gly Arg Glu Ser Ser Val Asn Gly
 755 760 765
 Glu Ser His Ile Pro Gly Ile Thr Thr Leu Thr Asp Cys Leu Arg Arg
 770 775 780
 Phe Thr Arg Pro Glu His Leu Gly Ser Ser Ala Lys Ile Lys Cys Gly
 785 790 795 800
 Ser Cys Gln Ser Tyr Gln Glu Ser Thr Lys Gln Leu Thr Met Asn Lys
 805 810 815
 Leu Pro Val Val Ala Cys Phe His Phe Lys Arg Phe Glu His Ser Ala
 820 825 830
 Lys Gln Arg Arg Lys Ile Thr Thr Tyr Ile Ser Phe Pro Leu Glu Leu
 835 840 845
 Asp Met Thr Pro Phe Met Ala Ser Ser Lys Glu Ser Arg Met Asn Gly
 850 855 860
 Gln Leu Gln Leu Pro Thr Asn Ser Gly Asn Asn Glu Asn Lys Tyr Ser
 865 870 875 880

Leu Phe Ala Val Val Asn His Gln Gly Thr Leu Glu Ser Gly His Tyr
885 890 895

Thr Ser Phe Ile Arg His His Lys Asp Gln Trp Phe Lys Cys Asp Asp
900 905 910

Ala Val Ile Thr Lys Ala Ser Ile Lys Asp Val Leu Asp Ser Glu Gly
915 920 925

Tyr Leu Leu Phe Tyr His Lys Gln Val Leu Glu His Glu Ser Glu Lys
930 935 940

Val Lys Glu Met Asn Thr Gln Ala Tyr
945 950

<210> 67

<211> 783

<212> PRT

<213> Homo sapiens

<400> 67

Met Arg Val Lys Asp Pro Thr Lys Ala Leu Pro Glu Lys Ala Lys Arg
1 5 10 15

Ser Lys Arg Pro Thr Val Pro His Asp Glu Asp Ser Ser Asp Asp Ile
20 25 30

Ala Val Gly Leu Thr Cys Gln His Val Ser His Ala Ile Ser Val Asn
35 40 45

His Val Lys Arg Ala Ile Ala Glu Asn Leu Trp Ser Val Cys Ser Glu
50 55 60

Cys Leu Glu Glu Arg Arg Phe Tyr Asp Gly Gln Leu Val Leu Thr Ser
65 70 75 80

Asp Ile Trp Leu Cys Leu Lys Cys Gly Phe Gln Gly Cys Gly Lys Asn
85 90 95

Ser Glu Ser Gln His Ser Leu Lys His Phe Lys Ser Ser Arg Thr Glu
100 105 110

Pro His Cys Ile Ile Ile Asn Leu Ser Thr Trp Ile Ile Trp Cys Tyr
115 120 125

Glu Cys Asp Glu Lys Leu Ser Thr His Cys Asn Lys Lys Val Leu Ala
130 135 140

Gln Ile Val Asp Phe Leu Gln Lys His Ala Ser Lys Thr Gln Thr Ser
145 150 155 160

Ala Phe Ser Arg Ile Met Lys Leu Cys Glu Glu Lys Cys Glu Thr Asp
165 170 175

Glu Ile Gln Lys Gly Gly Lys Cys Arg Asn Leu Ser Val Arg Gly Ile
180 185 190

Thr Asn Leu Gly Asn Thr Cys Phe Phe Asn Ala Val Met Gln Asn Leu
 195 200 205
 Ala Gln Thr Tyr Thr Leu Thr Asp Leu Met Asn Glu Ile Lys Glu Ser
 210 215 220
 Ser Thr Lys Leu Lys Ile Phe Pro Ser Ser Asp Ser Gln Leu Asp Pro
 225 230 235 240
 Leu Val Val Glu Leu Ser Arg Pro Gly Pro Leu Thr Ser Ala Leu Phe
 245 250 255
 Leu Phe Leu His Ser Met Lys Glu Thr Glu Lys Gly Pro Leu Ser Pro
 260 265 270
 Lys Val Leu Phe Asn Gln Leu Cys Gln Lys Ala Pro Arg Phe Lys Asp
 275 280 285
 Phe Gln Gln Gln Asp Ser Gln Glu Leu Leu His Tyr Leu Leu Asp Ala
 290 295 300
 Val Arg Thr Glu Glu Thr Lys Arg Ile Gln Ala Ser Ile Leu Lys Ala
 305 310 315 320
 Phe Asn Asn Pro Thr Thr Lys Thr Ala Asp Asp Glu Thr Arg Lys Lys
 325 330 335
 Val Lys Ile Ser Thr Val Lys Asp Pro Phe Ile Asp Ile Ser Leu Pro
 340 345 350
 Ile Ile Glu Glu Arg Val Ser Lys Pro Leu Leu Trp Gly Arg Met Asn
 355 360 365
 Lys Tyr Arg Ser Leu Arg Glu Thr Asp His Asp Arg Tyr Ser Gly Asn
 370 375 380
 Val Thr Ile Glu Asn Ile His Gln Pro Arg Ala Ala Lys Lys His Ser
 385 390 395 400
 Ser Ser Lys Asp Lys Ser Gln Leu Ile His Asp Arg Lys Cys Ile Arg
 405 410 415
 Lys Leu Ser Ser Gly Glu Thr Val Thr Tyr Gln Lys Asn Glu Asn Leu
 420 425 430
 Glu Met Asn Gly Asp Ser Leu Met Phe Ala Ser Leu Met Asn Ser Glu
 435 440 445
 Ser Arg Leu Asn Glu Ser Pro Thr Asp Asp Ser Glu Lys Glu Ala Ser
 450 455 460
 His Ser Glu Ser Asn Val Asp Ala Asp Ser Glu Pro Ser Glu Ser Glu
 465 470 475 480
 Ser Ala Ser Lys Gln Thr Gly Leu Phe Arg Ser Ser Ser Gly Ser Gly
 485 490 495

Val Gln Pro Asp Gly Pro Leu Tyr Pro Leu Ser Ala Gly Lys Leu Leu
 500 505 510
 Tyr Thr Lys Glu Thr Asp Ser Gly Asp Lys Glu Met Ala Glu Ala Ile
 515 520 525
 Ser Glu Leu Arg Leu Ser Ser Thr Val Thr Gly Asp Gln Asp Phe Asp
 530 535 540
 Arg Glu Asn Gln Pro Leu Asn Ile Ser Asn Asn Leu Cys Phe Leu Glu
 545 550 555 560
 Gly Lys His Leu Arg Ser Tyr Ser Pro Gln Asn Ala Phe Gln Thr Leu
 565 570 575
 Ser Gln Ser Tyr Ile Thr Thr Ser Lys Glu Cys Ser Ile Gln Ser Cys
 580 585 590
 Leu Tyr Gln Phe Thr Ser Met Glu Leu Leu Met Gly Asn Asn Lys Leu
 595 600 605
 Leu Cys Glu Asn Cys Thr Lys Asn Lys Gln Lys Tyr Gln Glu Glu Thr
 610 615 620
 Ser Phe Ala Glu Lys Lys Val Glu Gly Val Tyr Thr Asn Ala Arg Lys
 625 630 635 640
 Gln Leu Leu Ile Ser Ala Val Pro Ala Val Leu Ile Leu His Leu Lys
 645 650 655
 Arg Phe His Gln Ala Gly Leu Ser Leu Arg Lys Val Asn Arg His Val
 660 665 670
 Asp Phe Pro Leu Met Leu Asp Leu Ala Pro Phe Cys Ser Ala Thr Cys
 675 680 685
 Lys Asn Ala Ser Val Gly Asp Lys Val Leu Tyr Gly Leu Tyr Gly Ile
 690 695 700
 Val Glu His Ser Gly Ser Met Arg Glu Gly His Tyr Thr Ala Tyr Val
 705 710 715 720
 Lys Val Arg Thr Pro Ser Arg Lys Leu Ser Glu His Asn Thr Lys Lys
 725 730 735
 Lys Asn Val Pro Gly Leu Lys Ala Ala Asp Ser Glu Ser Ala Gly Gln
 740 745 750
 Trp Val His Val Ser Asp Thr Tyr Leu Gln Val Val Pro Glu Ser Arg
 755 760 765
 Ala Leu Ser Ala Gln Ala Tyr Leu Leu Phe Tyr Glu Arg Val Leu
 770 775 780

<210> 68

<211> 753

<212> PRT

<400> 68

Met 1	Glu	Tyr	Pro	Val 5	Pro	Tyr	Phe	Arg	Ser 10	Pro	Asn	Arg	Thr	Leu 15	Ile
Pro	Glu	Arg	Ile 20	Trp	Ser	Asn	Pro	Leu 25	Leu	Val	Leu	Val	Ile 30	Ala	Tyr
Lys	Thr	Val 35	Ser	Trp	Pro	Arg	Gln 40	Gln	Leu	Leu	Ala	Lys 45	Gln	Ala	Asn
Lys	Trp	Met 50	Pro	Phe	Val	Ile 55	Pro	Ser	Lys	Thr	Leu 60	Pro	Trp	Asp	Pro
Leu 65	Glu	Leu	Lys	Ile	Cys 70	Tyr	Gln	Gln	Asn 75	Arg	Pro	Tyr	Pro	Ser	Pro 80
Asp	Pro	Ser	Asn	Phe 85	Pro	Thr	Phe	Leu	Arg 90	Cys	Leu	Asn	Ala	Phe 95	Ser
Ala	Ala	Val	Phe 100	Tyr	Leu	Pro	Gln	Pro 105	Ser	Trp	His	Lys	Pro 110	Glu	Gly
Leu	Lys	Pro 115	Ala	Gly	Tyr	Pro	Arg 120	Val	Pro	Asp	Ile 125	Pro	Tyr	Gly	Ser
Gly	Tyr	Thr 130	Leu	Lys	Ser	Thr 135	Thr	Glu	Ala	Ala	Gly 140	Leu	His	Gln	Ser
Leu 145	Pro	Met	Val	Gln 150	Leu	Pro	Leu	His	Pro 155	Thr	Lys	Gly	Ser	Ala	Leu 160
Leu	Lys	Glu	Ser	Glu 165	Leu	Asn	Asp	Ala	Asp 170	Trp	Ala	Asn	Leu	Met 175	Trp
Lys	Arg	Tyr	Leu 180	Glu	Glu	Gln	Glu	Asp 185	Ser	Lys	Met	Val	Asp 190	Leu	Phe
Val	Gly	Gln 195	Met	Lys	Ser	Tyr	Leu 200	Lys	Cys	Gln	Ala 205	Cys	Gly	Tyr	His
Ser 210	Met	Thr	Phe	Lys	Val	Phe 215	Phe	Phe	Cys	Asp	Leu 220	Ser	Leu	Thr	Ile
Pro 225	Lys	Lys	Gly	Phe	Ala 230	Gly	Gly	Lys	Val	Ser 235	Leu	Arg	Asp	Cys	Leu 240
Ser	Leu	Phe	Thr	Lys 245	Glu	Glu	Glu	Leu	Glu 250	Leu	Glu	Asn	Ala	Ser 255	Gly
Thr	Leu	Pro	Val 260	Thr	Lys	Ser	Glu	Val 265	Leu	Ser	Thr	Ser	Cys 270	Val	Pro
Phe	Gly	Thr 275	Thr	Gln	Ala	Ala	Ser 280	Thr	Val	Ala	Thr	Thr 285	Gln	Pro	Cys

Ala	Ser	Ala	Arg	Leu	Val	Gly	Thr	Phe	Thr	Met	Thr	Leu	Val	Ser	Pro	290	295	300
Leu	Asn	Thr	Leu	Arg	Asp	Thr	Glu	Gly	Ile	Glu	Leu	Thr	Val	Met	Lys	305	310	315
Ala	Leu	Val	Leu	Asp	Ile	Leu	Phe	Lys	Ala	Ser	Thr	Asp	Ile	Ile	Leu	325	330	335
Phe	Asn	His	Asp	Ser	Ser	Ser	Gly	Asn	Lys	Trp	Arg	Lys	Leu	Pro	Glu	340	345	350
Pro	Gly	Gly	Leu	Glu	Lys	Lys	His	Glu	Glu	Leu	Arg	Leu	Arg	Pro	Leu	355	360	365
Lys	Glu	Glu	Tyr	His	Trp	Leu	Val	Leu	Val	Pro	Leu	Lys	Leu	Thr	Gly	370	375	380
Ser	Pro	His	Arg	Trp	Arg	Pro	Arg	Lys	Arg	Ala	Leu	Ala	Ser	Cys	Ser	385	390	395
Trp	Cys	Leu	Gln	Arg	Val	Thr	Met	Arg	Arg	Val	Met	Gly	Val	Gln	Asp	405	410	415
Lys	Ala	Gly	Asn	Arg	Asn	Gln	Met	Leu	Leu	Leu	Gly	Gln	Arg	Pro	Val	420	425	430
Ile	Gly	Asp	Thr	Val	Ser	Asn	Ser	Gln	Thr	Thr	Arg	Asp	Lys	Ala	Cys	435	440	445
Arg	Arg	Pro	Pro	Ser	His	Ser	Val	Phe	Thr	Gln	Ser	Ser	Phe	Trp	Ala	450	455	460
Cys	Leu	Asp	Pro	Asp	Leu	Phe	Phe	Tyr	Gly	His	Gln	Ser	Tyr	Trp	Met	465	470	475
Lys	Ala	His	Leu	Asn	Asp	Leu	Ile	Leu	Arg	Glu	Gly	Pro	Val	Thr	Gln	485	490	495
Met	Ala	Gln	Ser	Phe	Tyr	Trp	Gly	Phe	Pro	Ala	Gly	Gly	Asn	Leu	Ser	500	505	510
Ala	Leu	Glu	Met	Leu	Pro	Asp	Gly	Pro	Ala	Pro	Arg	Thr	Phe	Leu	Gln	515	520	525
Lys	Lys	Ser	Cys	Leu	Phe	Pro	Leu	Phe	Ser	Tyr	Ile	Leu	Leu	His	Lys	530	535	540
Ala	Gly	Lys	Leu	Phe	Gln	Pro	Asp	Ala	His	Gly	Phe	Leu	Val	Lys	Lys	545	550	555
Val	His	Ala	Pro	Thr	Arg	Gly	Ile	Val	Phe	Ile	Met	Glu	Pro	Arg	Gln	565	570	575
Leu	Gly	Gly	Lys	Gly	Ser	Leu	Ser	Lys	Leu	Gln	Pro	Ala	Cys	Ala	Leu	580	585	590

Gly Gly Met Asn Ser Gly Met Glu Pro Gln Lys Ser Ala Pro Phe Ala
 595 600 605

Ala Gly Lys Gly Leu Ala Pro Pro Leu Pro Val Cys Asn Leu Arg Phe
 610 615 620

Lys Leu Arg Val Tyr Lys Phe Glu Glu Glu Leu Trp Ser Arg Ala Gly
 625 630 635 640

Leu Gly Lys Lys Ser Asp Asn His Ser Ser Arg Gln Met Pro Trp Gly
 645 650 655

Ala Ala Gly Val Ala Cys Gln His Pro Cys Lys Leu Pro Arg Ile Val
 660 665 670

Ala Glu Leu Thr Pro Pro Lys Leu Ser Phe Gly Phe Leu Asn Thr Val
 675 680 685

Gln Ser Ser Val Leu Pro Thr Ser Leu Ser Gln Phe Phe Leu Asn Asp
 690 695 700

Ser Gln Pro Glu Glu Ala Ile Pro Pro Gln Ser Leu Leu Pro Gly Ser
 705 710 715 720

Pro Arg Thr Asn Ser Phe Pro Lys Asp Lys Phe Val Pro Lys Asp Lys
 725 730 735

Leu Lys Val Ile Leu Ser Leu Leu Thr Met Tyr Glu Leu Asp Arg Leu
 740 745 750

Phe

<210> 69

<211> 712

<212> PRT

<213> Homo sapiens

<400> 69

Met Leu Ala Met Asp Thr Cys Lys His Val Gly Gln Leu Gln Leu Ala
 1 5 10 15

Gln Asp His Ser Ser Leu Asn Pro Gln Lys Trp His Cys Val Asp Cys
 20 25 30

Asn Thr Thr Glu Ser Ile Trp Ala Cys Leu Ser Cys Ser His Val Ala
 35 40 45

Cys Gly Arg Tyr Ile Glu Glu His Ala Leu Lys His Phe Gln Glu Ser
 50 55 60

Ser His Pro Val Ala Leu Glu Val Asn Glu Met Tyr Val Phe Cys Tyr
 65 70 75 80

Leu Cys Asp Asp Tyr Val Leu Asn Asp Asn Ala Thr Gly Asp Leu Lys
 85 90 95

Leu Leu Arg Arg Thr Leu Ser Ala Ile Lys Ser Gln Asn Tyr His Cys
 100 105 110
 Thr Thr Arg Ser Gly Arg Phe Leu Arg Ser Met Gly Thr Gly Asp Asp
 115 120 125
 Ser Tyr Phe Leu His Asp Gly Ala Gln Ser Leu Leu Gln Ser Glu Asp
 130 135 140
 Gln Leu Tyr Thr Ala Leu Trp His Arg Arg Arg Ile Leu Met Gly Lys
 145 150 155 160
 Ile Phe Arg Thr Trp Phe Glu Gln Ser Pro Ile Gly Arg Lys Lys Gln
 165 170 175
 Glu Glu Pro Phe Gln Glu Lys Ile Val Val Lys Arg Glu Val Lys Lys
 180 185 190
 Arg Arg Gln Glu Leu Glu Tyr Gln Val Lys Ala Glu Leu Glu Ser Met
 195 200 205
 Pro Pro Arg Lys Ser Leu Arg Leu Gln Gly Leu Ala Gln Ser Thr Ile
 210 215 220
 Ile Glu Ile Val Ser Val Gln Val Pro Ala Gln Thr Pro Ala Ser Pro
 225 230 235 240
 Ala Lys Asp Lys Val Leu Ser Thr Ser Glu Asn Glu Ile Ser Gln Lys
 245 250 255
 Val Ser Asp Ser Ser Val Lys Arg Arg Pro Ile Val Thr Pro Gly Val
 260 265 270
 Thr Gly Leu Arg Asn Leu Gly Asn Thr Cys Tyr Met Asn Ser Val Leu
 275 280 285
 Gln Val Leu Ser His Leu Leu Ile Phe Arg Gln Cys Phe Leu Lys Leu
 290 295 300
 Asp Leu Asn Gln Trp Leu Ala Met Thr Ala Ser Glu Lys Thr Arg Ser
 305 310 315 320
 Cys Lys His Pro Pro Val Thr Asp Thr Val Val Tyr Gln Met Asn Glu
 325 330 335
 Cys Gln Glu Lys Asp Thr Gly Phe Val Cys Ser Arg Gln Ser Ser Leu
 340 345 350
 Ser Ser Gly Leu Ser Gly Gly Ala Ser Lys Gly Arg Lys Met Glu Leu
 355 360 365
 Ile Gln Pro Lys Glu Pro Thr Ser Gln Tyr Ile Ser Leu Cys His Glu
 370 375 380
 Leu His Thr Leu Phe Gln Val Met Trp Ser Gly Lys Trp Ala Leu Val
 385 390 395 400

Ser Pro Phe Ala Met Leu His Ser Val Trp Arg Leu Ile Pro Ala Phe
 405 410 415
 Arg Gly Tyr Ala Gln Gln Asp Ala Gln Glu Phe Leu Cys Glu Leu Leu
 420 425 430
 Asp Lys Ile Gln Arg Glu Leu Glu Thr Thr Gly Thr Ser Leu Pro Ala
 435 440 445
 Leu Ile Pro Thr Ser Gln Arg Lys Leu Ile Lys Gln Val Leu Asn Val
 450 455 460
 Val Asn Asn Ile Phe His Gly Gln Leu Leu Ser Gln Val Thr Cys Leu
 465 470 475 480
 Ala Cys Asp Asn Lys Ser Asn Thr Ile Glu Pro Phe Trp Asp Leu Ser
 485 490 495
 Leu Glu Phe Pro Glu Arg Tyr Gln Cys Ser Gly Lys Asp Ile Ala Ser
 500 505 510
 Gln Pro Cys Leu Val Thr Glu Met Leu Ala Lys Phe Thr Glu Thr Glu
 515 520 525
 Ala Leu Glu Gly Lys Ile Tyr Val Cys Asp Gln Cys Asn Ser Lys Arg
 530 535 540
 Arg Arg Phe Ser Ser Lys Pro Val Val Leu Thr Glu Ala Gln Lys Gln
 545 550 555 560
 Leu Met Ile Cys His Leu Pro Gln Val Leu Arg Leu His Leu Lys Arg
 565 570 575
 Phe Arg Trp Ser Gly Arg Asn Asn Arg Glu Lys Ile Gly Val His Val
 580 585 590
 Gly Phe Glu Glu Ile Leu Asn Met Glu Pro Tyr Cys Cys Arg Glu Thr
 595 600 605
 Leu Lys Ser Leu Arg Pro Glu Cys Phe Ile Tyr Asp Leu Ser Ala Val
 610 615 620
 Val Met His His Gly Lys Gly Phe Gly Ser Gly His Tyr Thr Ala Tyr
 625 630 635 640
 Cys Tyr Asn Ser Glu Gly Gly Phe Trp Val His Cys Asn Asp Ser Lys
 645 650 655
 Leu Ser Met Cys Thr Met Asp Glu Val Cys Lys Ala Gln Ala Tyr Ile
 660 665 670
 Leu Phe Tyr Thr Gln Arg Val Thr Glu Asn Gly His Ser Lys Leu Leu
 675 680 685
 Pro Pro Glu Leu Leu Leu Gly Ser Gln His Pro Asn Glu Asp Ala Asp
 690 695 700

Thr Ser Ser Asn Glu Ile Leu Ser
705 710

<210> 70
<211> 289
<212> PRT
<213> Homo sapiens

<400> 70

Met Arg Val Lys Asp Pro Thr Lys Ala Leu Pro Glu Lys Ala Lys Arg
1 5 10 15

Ser Lys Arg Pro Thr Val Pro His Asp Glu Asp Ser Ser Asp Asp Ile
20 25 30

Ala Val Gly Leu Thr Cys Gln His Val Ser His Ala Ile Ser Val Asn
35 40 45

His Val Lys Arg Ala Ile Ala Glu Asn Leu Trp Ser Val Cys Ser Glu
50 55 60

Cys Leu Glu Glu Arg Arg Phe Tyr Asp Gly Gln Leu Val Leu Thr Ser
65 70 75 80

Asp Ile Trp Leu Cys Leu Lys Cys Gly Phe Gln Gly Cys Gly Lys Asn
85 90 95

Ser Glu Ser Gln His Ser Leu Lys His Phe Lys Ser Ser Arg Thr Glu
100 105 110

Pro His Cys Ile Ile Ile Asn Leu Ser Thr Trp Ile Ile Trp Cys Tyr
115 120 125

Glu Cys Asp Glu Lys Leu Ser Thr His Cys Asn Lys Lys Val Leu Ala
130 135 140

Gln Ile Val Asp Phe Leu Gln Lys His Ala Ser Lys Thr Gln Thr Ser
145 150 155 160

Ala Phe Ser Arg Ile Met Lys Leu Cys Glu Glu Lys Cys Glu Thr Asp
165 170 175

Glu Ile Gln Lys Gly Gly Lys Cys Arg Asn Leu Ser Val Arg Gly Ile
180 185 190

Thr Asn Leu Gly Asn Thr Cys Phe Phe Asn Ala Val Met Gln Asn Leu
195 200 205

Ala Gln Thr Tyr Thr Leu Thr Asp Leu Met Asn Glu Ile Lys Glu Ser
210 215 220

Ser Thr Lys Leu Lys Ile Phe Pro Ser Ser Asp Ser Gln Leu Asp Pro
225 230 235 240

Leu Val Val Glu Leu Ser Arg Pro Gly Pro Leu Thr Ser Ala Leu Phe
245 250 255

Leu Phe Leu His Ser Met Lys Glu Thr Glu Lys Gly Pro Leu Ser Pro
 260 265 270

Lys Val Leu Phe Asn Gln Leu Cys Gln Lys Arg Val His Leu His Leu
 275 280 285

Ile

<210> 71

<211> 366

<212> PRT

<213> Homo sapiens

<400> 71

Met Thr Val Arg Asn Ile Ala Ser Ile Cys Asn Met Gly Thr Asn Ala
 1 5 10 15

Ser Ala Leu Glu Lys Asp Ile Gly Pro Glu Gln Phe Pro Ile Asn Glu
 20 25 30

His Tyr Phe Gly Leu Val Asn Phe Gly Asn Thr Cys Tyr Cys Asn Ser
 35 40 45

Val Leu Gln Ala Leu Tyr Phe Cys Arg Pro Phe Arg Glu Asn Val Leu
 50 55 60

Ala Tyr Lys Ala Gln Gln Lys Lys Lys Glu Asn Leu Leu Thr Cys Leu
 65 70 75 80

Ala Asp Leu Phe His Ser Ile Ala Thr Gln Lys Lys Lys Val Gly Val
 85 90 95

Ile Pro Pro Lys Lys Phe Ile Ser Arg Leu Arg Lys Glu Asn Asp Leu
 100 105 110

Phe Asp Asn Tyr Met Gln Gln Asp Ala His Glu Phe Leu Asn Tyr Leu
 115 120 125

Leu Asn Thr Ile Ala Asp Ile Leu Gln Glu Glu Lys Lys Gln Glu Lys
 130 135 140

Gln Asn Gly Lys Leu Lys Asn Gly Asn Met Asn Glu Pro Ala Glu Asn
 145 150 155 160

Asn Lys Pro Glu Leu Thr Trp Val His Glu Ile Phe Gln Gly Thr Leu
 165 170 175

Thr Asn Glu Thr Arg Cys Leu Asn Cys Glu Thr Val Ser Ser Lys Asp
 180 185 190

Glu Asp Phe Leu Asp Leu Ser Val Asp Val Glu Gln Asn Thr Ser Ile
 195 200 205

Thr His Cys Leu Arg Asp Phe Ser Asn Thr Glu Thr Leu Cys Ser Glu
 210 215 220

Gln Lys Tyr Tyr Cys Glu Thr Cys Cys Ser Lys Gln Glu Ala Gln Lys
 225 230 235 240
 Arg Met Arg Val Lys Lys Leu Pro Met Val Leu Ala Leu His Leu Lys
 245 250 255
 Arg Phe Lys Tyr Met Glu Gln Leu Arg Arg Tyr Thr Lys Leu Ser Tyr
 260 265 270
 Arg Val Val Phe Pro Leu Glu Leu Arg Leu Phe Asn Thr Ser Ser Asp
 275 280 285
 Ala Val Asn Leu Asp Arg Met Tyr Asp Leu Val Ala Val Val Val His
 290 295 300
 Cys Gly Ser Gly Pro Asn Arg Gly His Tyr Ile Thr Ile Val Lys Ser
 305 310 315 320
 His Gly Phe Trp Leu Leu Phe Asp Asp Ile Val Glu Lys Ile Asp
 325 330 335
 Ala Gln Ala Ile Glu Glu Phe Tyr Gly Leu Thr Ser Asp Ile Ser Lys
 340 345 350
 Asn Ser Glu Ser Gly Tyr Ile Leu Phe Tyr Gln Ser Arg Glu
 355 360 365

<210> 72
 <211> 1287
 <212> PRT
 <213> Homo sapiens

<400> 72
 Met Val Pro Gly Glu Glu Asn Gln Leu Val Pro Lys Glu Ala Pro Leu
 1 5 10 15
 Asp His Thr Ser Asp Lys Ser Leu Leu Asp Ala Asn Phe Glu Pro Gly
 20 25 30
 Lys Lys Asn Phe Leu His Leu Thr Asp Lys Asp Gly Glu Gln Pro Gln
 35 40 45
 Ile Leu Leu Glu Asp Ser Ser Ala Gly Glu Asp Ser Val His Asp Arg
 50 55 60
 Phe Ile Gly Pro Leu Pro Arg Glu Gly Ser Val Gly Ser Thr Ser Asp
 65 70 75 80
 Tyr Val Ser Gln Ser Tyr Ser Tyr Ser Ser Ile Leu Asn Lys Ser Glu
 85 90 95
 Thr Gly Tyr Val Gly Leu Val Asn Gln Ala Met Thr Cys Tyr Leu Asn
 100 105 110
 Ser Leu Leu Gln Thr Leu Phe Met Thr Pro Glu Phe Arg Asn Ala Leu
 115 120 125

Tyr Lys Trp Glu Phe Glu Glu Ser Glu Glu Asp Pro Val Thr Ser Ile
 130 135 140
 Pro Tyr Gln Leu Gln Arg Leu Phe Val Leu Leu Gln Thr Ser Lys Lys
 145 150 155 160
 Arg Ala Ile Glu Thr Thr Asp Val Thr Arg Ser Phe Gly Trp Asp Ser
 165 170 175
 Ser Glu Ala Trp Gln Gln His Asp Val Gln Glu Leu Cys Arg Val Met
 180 185 190
 Phe Asp Ala Leu Glu Gln Lys Trp Lys Gln Thr Glu Gln Ala Asp Leu
 195 200 205
 Ile Asn Glu Leu Tyr Gln Gly Lys Leu Lys Asp Tyr Val Arg Cys Leu
 210 215 220
 Glu Cys Gly Tyr Glu Gly Trp Arg Ile Asp Thr Tyr Leu Asp Ile Pro
 225 230 235 240
 Leu Val Ile Arg Pro Tyr Gly Ser Ser Gln Ala Phe Ala Ser Val Glu
 245 250 255
 Glu Ala Leu His Ala Phe Ile Gln Pro Glu Ile Leu Asp Gly Pro Asn
 260 265 270
 Gln Tyr Phe Cys Glu Arg Cys Lys Lys Lys Cys Asp Ala Arg Lys Gly
 275 280 285
 Leu Arg Phe Leu His Phe Pro Tyr Leu Leu Thr Leu Gln Leu Lys Arg
 290 295 300
 Phe Asp Phe Asp Tyr Thr Thr Met His Arg Ile Lys Leu Asn Asp Arg
 305 310 315 320
 Met Thr Phe Pro Glu Glu Leu Asp Met Ser Thr Phe Ile Asp Val Glu
 325 330 335
 Asp Glu Lys Ser Pro Gln Thr Glu Ser Cys Thr Asp Ser Gly Ala Glu
 340 345 350
 Asn Glu Gly Ser Cys His Ser Asp Gln Met Ser Asn Asp Phe Ser Asn
 355 360 365
 Asp Asp Gly Val Asp Glu Gly Ile Cys Leu Glu Thr Asn Ser Gly Thr
 370 375 380
 Glu Lys Ile Ser Lys Ser Gly Leu Glu Lys Asn Ser Leu Ile Tyr Glu
 385 390 395 400
 Leu Phe Ser Val Met Ala His Ser Gly Ser Ala Ala Gly Gly His Tyr
 405 410 415
 Tyr Ala Cys Ile Lys Ser Phe Ser Asp Glu Gln Trp Tyr Ser Phe Asp
 420 425 430

Asp	Gln	His	Val	Ser	Arg	Ile	Thr	Gln	Glu	Asp	Ile	Lys	Lys	Thr	His	435	440	445	
Gly	Gly	Ser	Ser	Gly	Ser	Arg	Gly	Tyr	Tyr	Ser	Ser	Ala	Phe	Ala	Ser	450	455	460	
Ser	Thr	Asn	Ala	Tyr	Met	Leu	Ile	Tyr	Arg	Leu	Lys	Asp	Pro	Ala	Arg	465	470	475	480
Asn	Ala	Lys	Phe	Leu	Glu	Val	Gly	Glu	Tyr	Pro	Glu	His	Ile	Lys	Asn	485	490	495	
Leu	Val	Gln	Lys	Glu	Arg	Glu	Leu	Glu	Glu	Gln	Glu	Lys	Arg	Gln	Arg	500	505	510	
Glu	Ile	Glu	Arg	Asn	Thr	Cys	Lys	Ile	Lys	Leu	Phe	Cys	Leu	His	Pro	515	520	525	
Thr	Lys	Gln	Val	Met	Met	Glu	Asn	Lys	Leu	Glu	Val	His	Lys	Asp	Lys	530	535	540	
Thr	Leu	Lys	Glu	Ala	Val	Glu	Met	Ala	Tyr	Lys	Met	Met	Asp	Leu	Glu	545	550	555	560
Glu	Val	Ile	Pro	Leu	Asp	Cys	Cys	Arg	Leu	Val	Lys	Tyr	Asp	Glu	Phe	565	570	575	
His	Asp	Tyr	Leu	Glu	Arg	Ser	Tyr	Glu	Gly	Glu	Glu	Asp	Thr	Pro	Met	580	585	590	
Gly	Leu	Leu	Leu	Gly	Gly	Val	Lys	Ser	Thr	Tyr	Met	Phe	Asp	Leu	Leu	595	600	605	
Leu	Glu	Thr	Arg	Lys	Pro	Asp	Gln	Val	Phe	Gln	Ser	Tyr	Lys	Pro	Gly	610	615	620	
Glu	Val	Met	Val	Lys	Val	His	Val	Val	Asp	Leu	Lys	Ala	Glu	Ser	Val	625	630	635	640
Ala	Ala	Pro	Ile	Thr	Val	Arg	Ala	Tyr	Leu	Asn	Gln	Thr	Val	Thr	Glu	645	650	655	
Phe	Lys	Gln	Leu	Ile	Ser	Lys	Ala	Ile	His	Leu	Pro	Ala	Glu	Thr	Met	660	665	670	
Arg	Ile	Val	Leu	Glu	Arg	Cys	Tyr	Asn	Asp	Leu	Arg	Leu	Leu	Ser	Val	675	680	685	
Ser	Ser	Lys	Thr	Leu	Lys	Ala	Glu	Gly	Phe	Phe	Arg	Ser	Asn	Lys	Val	690	695	700	
Phe	Val	Glu	Ser	Ser	Glu	Thr	Leu	Asp	Tyr	Gln	Met	Ala	Phe	Ala	Asp	705	710	715	720
Ser	His	Leu	Trp	Lys	Leu	Leu	Asp	Arg	His	Ala	Asn	Thr	Ile	Arg	Leu	725	730	735	

Phe Val Leu Leu Pro Glu Gln Ser Pro Val Ser Tyr Ser Lys Arg Thr
 740 745 750
 Ala Tyr Gln Lys Ala Gly Gly Asp Ser Gly Asn Val Asp Asp Asp Cys
 755 760 765
 Glu Arg Val Lys Gly Pro Val Gly Ser Leu Lys Ser Val Glu Ala Ile
 770 775 780
 Leu Glu Glu Ser Thr Glu Lys Leu Lys Ser Leu Ser Leu Gln Gln Gln
 785 790 795 800
 Gln Asp Gly Asp Asn Gly Asp Ser Ser Lys Ser Thr Glu Thr Ser Asp
 805 810 815
 Phe Glu Asn Ile Glu Ser Pro Leu Asn Glu Arg Asp Ser Ser Ala Ser
 820 825 830
 Val Asp Asn Arg Glu Leu Glu Gln His Ile Gln Thr Ser Asp Pro Glu
 835 840 845
 Asn Phe Gln Ser Glu Glu Arg Ser Asp Ser Asp Val Asn Asn Asp Arg
 850 855 860
 Ser Thr Ser Ser Val Asp Ser Asp Ile Leu Ser Ser Ser His Ser Ser
 865 870 875 880
 Asp Thr Leu Cys Asn Ala Asp Asn Ala Gln Ile Pro Leu Ala Asn Gly
 885 890 895
 Leu Asp Ser His Ser Ile Thr Ser Ser Arg Arg Thr Lys Ala Asn Glu
 900 905 910
 Gly Lys Lys Glu Thr Trp Asp Thr Ala Glu Glu Asp Ser Gly Thr Asp
 915 920 925
 Ser Glu Tyr Asp Glu Ser Gly Lys Ser Arg Gly Glu Met Gln Tyr Met
 930 935 940
 Tyr Phe Lys Ala Glu Pro Tyr Ala Ala Asp Glu Gly Ser Gly Glu Gly
 945 950 955 960
 His Lys Trp Leu Met Val His Val Asp Lys Arg Ile Thr Leu Ala Ala
 965 970 975
 Phe Lys Gln His Leu Glu Pro Phe Val Gly Val Leu Ser Ser His Phe
 980 985 990
 Lys Val Phe Arg Val Tyr Ala Ser Asn Gln Glu Phe Glu Ser Val Arg
 995 1000 1005
 Leu Asn Glu Thr Leu Ser Ser Phe Ser Asp Asp Asn Lys Ile Thr Ile
 1010 1015 1020
 Arg Leu Gly Arg Ala Leu Lys Lys Gly Glu Tyr Arg Val Lys Val Tyr
 1025 1030 1035 1040

Gln Leu Leu Val Asn Glu Gln Glu Pro Cys Lys Phe Leu Leu Asp Ala
 1045 1050 1055
 Val Phe Ala Lys Gly Met Thr Val Arg Gln Ser Lys Glu Glu Leu Ile
 1060 1065 1070
 Pro Gln Leu Arg Glu Gln Cys Gly Leu Glu Leu Ser Ile Asp Arg Phe
 1075 1080 1085
 Arg Leu Arg Lys Lys Thr Trp Lys Asn Pro Gly Thr Val Phe Leu Asp
 1090 1095 1100
 Tyr His Ile Tyr Glu Glu Asp Ile Asn Ile Ser Ser Asn Trp Glu Val
 1105 1110 1115 1120
 Phe Leu Glu Val Leu Asp Gly Val Glu Lys Met Lys Ser Met Ser Gln
 1125 1130 1135
 Leu Ala Val Leu Ser Arg Arg Trp Lys Pro Ser Glu Met Lys Leu Asp
 1140 1145 1150
 Pro Phe Gln Glu Val Val Leu Glu Ser Ser Ser Val Asp Glu Leu Arg
 1155 1160 1165
 Glu Lys Leu Ser Glu Ile Ser Gly Ile Pro Leu Asp Asp Ile Glu Phe
 1170 1175 1180
 Ala Lys Gly Arg Gly Thr Phe Pro Cys Asp Ile Ser Val Leu Asp Ile
 1185 1190 1195 1200
 His Gln Asp Leu Asp Trp Asn Pro Lys Val Ser Thr Leu Asn Val Trp
 1205 1210 1215
 Pro Leu Tyr Ile Cys Asp Asp Gly Ala Val Ile Phe Tyr Arg Asp Lys
 1220 1225 1230
 Thr Glu Glu Leu Met Glu Leu Thr Asp Glu Gln Arg Asn Glu Leu Met
 1235 1240 1245
 Lys Lys Glu Ser Ser Arg Leu Gln Lys Thr Gly His Arg Val Thr Tyr
 1250 1255 1260
 Ser Pro Arg Lys Glu Lys Ala Leu Lys Ile Tyr Leu Asp Gly Ala Pro
 1265 1270 1275 1280
 Asn Lys Asp Leu Thr Gln Asp
 1285

<210> 73

<211> 1604

<212> PRT

<213> Homo sapiens

<400> 73

Met Gly Ala Lys Glu Ser Arg Ile Gly Phe Leu Ser Tyr Glu Glu Ala
 1 5 10 15

Leu Arg Arg Val Thr Asp Val Glu Leu Lys Arg Leu Lys Asp Ala Phe
 20 25 30
 Lys Arg Thr Cys Gly Leu Ser Tyr Tyr Met Gly Gln His Cys Phe Ile
 35 40 45
 Arg Glu Val Leu Gly Asp Gly Val Pro Pro Lys Val Ala Glu Val Ile
 50 55 60
 Tyr Cys Ser Phe Gly Gly Thr Ser Lys Gly Leu His Phe Asn Asn Leu
 65 70 75 80
 Ile Val Gly Leu Val Leu Leu Thr Arg Gly Lys Asp Glu Glu Lys Ala
 85 90 95
 Lys Tyr Ile Phe Ser Leu Phe Ser Ser Glu Ser Gly Asn Tyr Val Ile
 100 105 110
 Arg Glu Glu Met Glu Arg Met Leu His Val Val Asp Gly Lys Val Pro
 115 120 125
 Asp Thr Leu Arg Lys Cys Phe Ser Glu Gly Glu Lys Val Asn Tyr Glu
 130 135 140
 Lys Phe Arg Asn Trp Leu Phe Leu Asn Lys Asp Ala Phe Thr Phe Ser
 145 150 155 160
 Arg Trp Leu Leu Ser Gly Gly Val Tyr Val Thr Leu Thr Asp Asp Ser
 165 170 175
 Asp Thr Pro Thr Phe Tyr Gln Thr Leu Ala Gly Val Thr His Leu Glu
 180 185 190
 Glu Ser Asp Ile Ile Asp Leu Glu Lys Arg Tyr Trp Leu Leu Lys Ala
 195 200 205
 Gln Ser Arg Thr Gly Arg Phe Asp Leu Glu Thr Phe Gly Pro Leu Val
 210 215 220
 Ser Pro Pro Ile Arg Pro Ser Leu Ser Glu Gly Leu Phe Asn Ala Phe
 225 230 235 240
 Asp Glu Asn Arg Asp Asn His Ile Asp Phe Lys Glu Ile Ser Cys Gly
 245 250 255
 Leu Ser Ala Cys Cys Arg Gly Pro Leu Ala Glu Arg Gln Lys Phe Cys
 260 265 270
 Phe Lys Val Phe Asp Val Asp Arg Asp Gly Val Leu Ser Arg Val Glu
 275 280 285
 Leu Arg Asp Met Val Val Ala Leu Leu Glu Val Trp Lys Asp Asn Arg
 290 295 300
 Thr Asp Asp Ile Pro Glu Leu His Met Asp Leu Ser Asp Ile Val Glu
 305 310 315 320

Gly	Ile	Leu	Asn	Ala	His	Asp	Thr	Thr	Lys	Met	Gly	His	Leu	Thr	Leu	325	330	335	
Glu	Asp	Tyr	Gln	Ile	Trp	Ser	Val	Lys	Asn	Val	Leu	Ala	Asn	Glu	Phe	340	345	350	
Leu	Asn	Leu	Leu	Phe	Gln	Val	Cys	His	Ile	Val	Leu	Gly	Leu	Arg	Pro	355	360	365	
Ala	Thr	Pro	Glu	Glu	Glu	Gly	Gln	Ile	Ile	Arg	Gly	Trp	Leu	Glu	Arg	370	375	380	
Glu	Ser	Arg	Tyr	Gly	Leu	Gln	Ala	Gly	His	Asn	Trp	Phe	Ile	Ile	Ser	385	390	395	400
Met	Gln	Trp	Trp	Gln	Gln	Trp	Lys	Glu	Tyr	Val	Lys	Tyr	Asp	Ala	Asn	405	410	415	
Pro	Val	Val	Ile	Glu	Pro	Ser	Ser	Val	Leu	Asn	Gly	Gly	Lys	Tyr	Ser	420	425	430	
Phe	Gly	Thr	Ala	Ala	His	Pro	Met	Glu	Gln	Val	Glu	Asp	Arg	Ile	Gly	435	440	445	
Ser	Ser	Leu	Ser	Tyr	Val	Asn	Thr	Thr	Glu	Glu	Lys	Phe	Ser	Asp	Asn	450	455	460	
Ile	Ser	Thr	Ala	Ser	Glu	Ala	Ser	Glu	Thr	Ala	Gly	Ser	Gly	Phe	Leu	465	470	475	480
Tyr	Ser	Ala	Thr	Pro	Gly	Ala	Asp	Val	Cys	Phe	Ala	Arg	Gln	His	Asn	485	490	495	
Thr	Ser	Asp	Asn	Asn	Asn	Gln	Cys	Leu	Leu	Gly	Ala	Asn	Gly	Asn	Ile	500	505	510	
Leu	Leu	His	Leu	Asn	Pro	Gln	Lys	Pro	Gly	Ala	Ile	Asp	Asn	Gln	Pro	515	520	525	
Leu	Val	Thr	Gln	Glu	Pro	Val	Lys	Ala	Thr	Ser	Leu	Thr	Leu	Glu	Gly	530	535	540	
Gly	Arg	Leu	Lys	Arg	Thr	Pro	Gln	Leu	Ile	His	Gly	Arg	Asp	Tyr	Glu	545	550	555	560
Met	Val	Pro	Glu	Pro	Val	Trp	Arg	Ala	Leu	Tyr	His	Trp	Tyr	Gly	Ala	565	570	575	
Asn	Leu	Ala	Leu	Pro	Arg	Pro	Val	Ile	Lys	Asn	Ser	Lys	Thr	Asp	Ile	580	585	590	
Pro	Glu	Leu	Glu	Leu	Phe	Pro	Arg	Tyr	Leu	Leu	Phe	Leu	Arg	Gln	Gln	595	600	605	
Pro	Ala	Thr	Arg	Thr	Gln	Gln	Ser	Asn	Ile	Trp	Val	Asn	Met	Gly	Asn	610	615	620	

Val	Pro	Ser	Pro	Asn	Ala	Pro	Leu	Lys	Arg	Val	Leu	Ala	Tyr	Thr	Gly	
625					630					635					640	
Cys	Phe	Ser	Arg	Met	Gln	Thr	Ile	Lys	Glu	Ile	His	Glu	Tyr	Leu	Ser	
				645					650					655		
Gln	Arg	Leu	Arg	Ile	Lys	Glu	Glu	Asp	Met	Arg	Leu	Trp	Leu	Tyr	Asn	
			660					665					670			
Ser	Glu	Asn	Tyr	Leu	Thr	Leu	Leu	Asp	Asp	Glu	Asp	His	Lys	Leu	Glu	
		675					680					685				
Tyr	Leu	Lys	Ile	Gln	Asp	Glu	Gln	His	Leu	Val	Ile	Glu	Val	Arg	Asn	
	690					695					700					
Lys	Asp	Met	Ser	Trp	Pro	Glu	Glu	Met	Ser	Phe	Ile	Ala	Asn	Ser	Ser	
705					710					715					720	
Lys	Ile	Asp	Arg	His	Lys	Val	Pro	Thr	Glu	Lys	Gly	Ala	Thr	Gly	Leu	
				725					730					735		
Ser	Asn	Leu	Gly	Asn	Thr	Cys	Phe	Met	Asn	Ser	Ser	Ile	Gln	Cys	Val	
			740					745					750			
Ser	Asn	Thr	Gln	Pro	Leu	Thr	Gln	Tyr	Phe	Ile	Ser	Gly	Arg	His	Leu	
		755					760					765				
Tyr	Glu	Leu	Asn	Arg	Thr	Asn	Pro	Ile	Gly	Met	Lys	Gly	His	Met	Ala	
	770					775					780					
Lys	Cys	Tyr	Gly	Asp	Leu	Val	Gln	Glu	Leu	Trp	Ser	Gly	Thr	Gln	Lys	
785					790					795					800	
Asn	Val	Ala	Pro	Leu	Lys	Leu	Arg	Trp	Thr	Ile	Ala	Lys	Tyr	Ala	Pro	
				805					810					815		
Arg	Phe	Asn	Gly	Phe	Gln	Gln	Gln	Asp	Ser	Gln	Glu	Leu	Leu	Ala	Phe	
			820					825					830			
Leu	Leu	Asp	Gly	Leu	His	Glu	Asp	Leu	Asn	Arg	Val	His	Glu	Lys	Pro	
		835					840					845				
Tyr	Val	Glu	Leu	Lys	Asp	Ser	Asp	Gly	Arg	Pro	Asp	Trp	Glu	Val	Ala	
	850					855					860					
Ala	Glu	Ala	Trp	Asp	Asn	His	Leu	Arg	Arg	Asn	Arg	Ser	Ile	Val	Val	
865					870					875					880	
Asp	Leu	Phe	His	Gly	Gln	Leu	Arg	Ser	Gln	Val	Lys	Cys	Lys	Thr	Cys	
				885					890					895		
Gly	His	Ile	Ser	Val	Arg	Phe	Asp	Pro	Phe	Asn	Phe	Leu	Ser	Leu	Pro	
			900					905					910			
Leu	Pro	Met	Asp	Ser	Tyr	Met	His	Leu	Glu	Ile	Thr	Val	Ile	Lys	Leu	
		915					920					925				

Asp Gly Thr Thr Pro Val Arg Tyr Gly Leu Arg Leu Asn Met Asp Glu
 930 935 940
 Lys Tyr Thr Gly Leu Lys Lys Gln Leu Ser Asp Leu Cys Gly Leu Asn
 945 950 955 960
 Ser Glu Gln Ile Leu Leu Ala Glu Val His Gly Ser Asn Ile Lys Asn
 965 970 975
 Phe Pro Gln Asp Asn Gln Lys Val Arg Leu Ser Val Ser Gly Phe Leu
 980 985 990
 Cys Ala Phe Glu Ile Pro Val Pro Val Ser Pro Ile Ser Ala Ser Ser
 995 1000 1005
 Pro Thr Gln Thr Asp Phe Ser Ser Ser Pro Ser Thr Asn Glu Met Phe
 1010 1015 1020
 Thr Leu Thr Thr Asn Gly Asp Leu Pro Arg Pro Ile Phe Ile Pro Asn
 1025 1030 1035 1040
 Gly Met Pro Asn Thr Val Val Pro Cys Gly Thr Glu Lys Asn Phe Thr
 1045 1050 1055
 Asn Gly Met Val Asn Gly His Met Pro Ser Leu Pro Asp Ser Pro Phe
 1060 1065 1070
 Thr Gly Tyr Ile Ile Ala Val His Arg Lys Met Met Arg Thr Glu Leu
 1075 1080 1085
 Tyr Phe Leu Ser Ser Gln Lys Asn Arg Pro Ser Leu Phe Gly Met Pro
 1090 1095 1100
 Leu Ile Val Pro Cys Thr Val His Thr Arg Lys Lys Asp Leu Tyr Asp
 1105 1110 1115 1120
 Ala Val Trp Ile Gln Val Ser Arg Leu Ala Ser Pro Leu Pro Pro Gln
 1125 1130 1135
 Glu Ala Ser Asn His Ala Gln Asp Cys Asp Asp Ser Met Gly Tyr Gln
 1140 1145 1150
 Tyr Pro Phe Thr Leu Arg Val Val Gln Lys Asp Gly Asn Ser Cys Ala
 1155 1160 1165
 Trp Cys Pro Trp Tyr Arg Phe Cys Arg Gly Cys Lys Ile Asp Cys Gly
 1170 1175 1180
 Glu Asp Arg Ala Phe Ile Gly Asn Ala Tyr Ile Ala Val Asp Trp Asp
 1185 1190 1195 1200
 Pro Thr Ala Leu His Leu Arg Tyr Gln Thr Ser Gln Glu Arg Val Val
 1205 1210 1215
 Asp Glu His Glu Ser Val Glu Gln Ser Arg Arg Ala Gln Ala Glu Pro
 1220 1225 1230

Ile Asn Leu Asp Ser Cys Leu Arg Ala Phe Thr Ser Glu Glu Glu Leu
 1235 1240 1245

Gly Glu Asn Glu Met Tyr Tyr Cys Ser Lys Cys Lys Thr His Cys Leu
 1250 1255 1260

Ala Thr Lys Lys Leu Asp Leu Trp Arg Leu Pro Pro Ile Leu Ile Ile
 1265 1270 1275 1280

His Leu Lys Arg Phe Gln Phe Val Asn Gly Arg Trp Ile Lys Ser Gln
 1285 1290 1295

Lys Ile Val Lys Phe Pro Arg Glu Ser Phe Asp Pro Ser Ala Phe Leu
 1300 1305 1310

Val Pro Arg Asp Pro Ala Leu Cys Gln His Lys Pro Leu Thr Pro Gln
 1315 1320 1325

Gly Asp Glu Leu Ser Glu Pro Arg Ile Leu Ala Arg Glu Val Lys Lys
 1330 1335 1340

Val Asp Ala Gln Ser Ser Ala Gly Glu Glu Asp Val Leu Leu Ser Lys
 1345 1350 1355 1360

Ser Pro Ser Ser Leu Ser Ala Asn Ile Ile Ser Ser Pro Lys Gly Ser
 1365 1370 1375

Pro Ser Ser Ser Arg Lys Ser Gly Thr Ser Cys Pro Ser Ser Lys Asn
 1380 1385 1390

Ser Ser Pro Asn Ser Ser Pro Arg Thr Leu Gly Arg Ser Lys Gly Arg
 1395 1400 1405

Leu Arg Leu Pro Gln Ile Gly Ser Lys Asn Lys Leu Ser Ser Ser Lys
 1410 1415 1420

Glu Asn Leu Asp Ala Ser Lys Glu Asn Gly Ala Gly Gln Ile Cys Glu
 1425 1430 1435 1440

Leu Ala Asp Ala Leu Ser Arg Gly His Val Leu Gly Gly Ser Gln Pro
 1445 1450 1455

Glu Leu Val Thr Pro Gln Asp His Glu Val Ala Leu Ala Asn Gly Phe
 1460 1465 1470

Leu Tyr Glu His Glu Ala Cys Gly Asn Gly Tyr Ser Asn Gly Gln Leu
 1475 1480 1485

Gly Asn His Ser Glu Glu Asp Ser Thr Asp Asp Gln Arg Glu Asp Thr
 1490 1495 1500

Arg Ile Lys Pro Ile Tyr Asn Leu Tyr Ala Ile Ser Cys His Ser Gly
 1505 1510 1515 1520

Ile Leu Gly Gly Gly His Tyr Val Thr Tyr Ala Lys Asn Pro Asn Cys
 1525 1530 1535

Lys Trp Tyr Cys Tyr Asn Asp Ser Ser Cys Lys Glu Leu His Pro Asp
 1540 1545 1550
 Glu Ile Asp Thr Asp Ser Ala Tyr Ile Leu Phe Tyr Glu Gln Gln Gly
 1555 1560 1565
 Ile Asp Tyr Ala Gln Phe Leu Pro Lys Thr Asp Gly Lys Lys Met Ala
 1570 1575 1580
 Asp Thr Ser Ser Met Asp Glu Asp Phe Glu Ser Asp Tyr Lys Lys Tyr
 1585 1590 1595 1600
 Cys Val Leu Gln

<210> 74
 <211> 1042
 <212> PRT
 <213> Homo sapiens

<400> 74
 Met Asp Lys Ile Leu Glu Gly Leu Val Ser Ser Ser His Pro Leu Pro
 1 5 10 15
 Leu Lys Arg Val Ile Val Arg Lys Val Val Glu Ser Ala Glu His Trp
 20 25 30
 Leu Asp Glu Ala Gln Cys Glu Ala Met Phe Asp Leu Thr Thr Arg Leu
 35 40 45
 Ile Leu Glu Gly Gln Asp Pro Phe Gln Arg Gln Val Gly His Gln Val
 50 55 60
 Leu Glu Ala Tyr Ala Arg Tyr His Arg Pro Glu Phe Glu Ser Phe Phe
 65 70 75 80
 Asn Lys Thr Phe Val Leu Gly Leu Leu His Gln Gly Tyr His Ser Leu
 85 90 95
 Asp Arg Lys Asp Val Ala Ile Leu Asp Tyr Ile His Asn Gly Leu Lys
 100 105 110
 Leu Ile Met Ser Cys Pro Ser Val Leu Asp Leu Phe Ser Leu Leu Gln
 115 120 125
 Val Glu Val Leu Arg Met Val Cys Glu Arg Pro Glu Pro Gln Leu Cys
 130 135 140
 Ala Arg Leu Ser Asp Leu Leu Thr Asp Phe Val Gln Cys Ile Pro Lys
 145 150 155 160
 Gly Lys Leu Ser Ile Thr Phe Cys Gln Gln Leu Val Arg Thr Ile Gly
 165 170 175
 His Phe Gln Cys Val Ser Thr Gln Glu Arg Glu Leu Arg Glu Tyr Val
 180 185 190

Ser Gln Val Thr Lys Val Ser Asn Leu Leu Gln Asn Ile Trp Lys Ala
 195 200 205
 Glu Pro Ala Thr Leu Leu Pro Ser Leu Gln Glu Val Phe Ala Ser Ile
 210 215 220
 Ser Ser Thr Asp Ala Ser Phe Glu Pro Ser Val Ala Leu Ala Ser Leu
 225 230 235 240
 Val Gln His Ile Pro Leu Gln Met Ile Thr Val Leu Ile Arg Ser Leu
 245 250 255
 Thr Thr Asp Pro Asn Val Lys Asp Ala Ser Met Thr Gln Ala Leu Cys
 260 265 270
 Arg Met Ile Asp Trp Leu Ser Trp Pro Leu Ala Gln His Val Asp Thr
 275 280 285
 Trp Val Ile Ala Leu Leu Lys Gly Leu Ala Ala Val Gln Lys Phe Thr
 290 295 300
 Ile Leu Ile Asp Val Thr Leu Leu Lys Ile Glu Leu Val Phe Asn Arg
 305 310 315 320
 Leu Trp Phe Pro Leu Val Arg Pro Gly Ala Leu Ala Val Leu Ser His
 325 330 335
 Met Leu Leu Ser Phe Gln His Ser Pro Glu Ala Phe His Leu Ile Val
 340 345 350
 Pro His Val Val Asn Leu Val His Ser Phe Lys Asn Asp Gly Leu Pro
 355 360 365
 Ser Ser Thr Ala Phe Leu Val Gln Leu Thr Glu Leu Ile His Cys Met
 370 375 380
 Met Tyr His Tyr Ser Gly Phe Pro Asp Leu Tyr Glu Pro Ile Leu Glu
 385 390 395 400
 Ala Ile Lys Asp Phe Pro Lys Pro Ser Glu Glu Lys Ile Lys Leu Ile
 405 410 415
 Leu Asn Gln Ser Ala Trp Thr Ser Gln Ser Asn Ser Leu Ala Ser Cys
 420 425 430
 Leu Ser Arg Leu Ser Gly Lys Ser Glu Thr Gly Lys Thr Gly Leu Ile
 435 440 445
 Asn Leu Gly Asn Thr Cys Tyr Met Asn Ser Val Ile Gln Ala Leu Phe
 450 455 460
 Met Ala Thr Asp Phe Arg Arg Gln Val Leu Ser Leu Asn Leu Asn Gly
 465 470 475 480
 Cys Asn Ser Leu Met Lys Lys Leu Gln His Leu Phe Ala Phe Leu Ala
 485 490 495

His Thr Gln Arg Glu Ala Tyr Ala Pro Arg Ile Phe Phe Glu Ala Ser
 500 505 510
 Arg Pro Pro Trp Phe Thr Pro Arg Ser Gln Gln Asp Cys Ser Glu Tyr
 515 520 525
 Leu Arg Phe Leu Leu Asp Arg Leu His Glu Glu Glu Lys Ile Leu Lys
 530 535 540
 Val Gln Ala Ser His Lys Pro Ser Glu Ile Leu Glu Cys Ser Glu Thr
 545 550 555 560
 Ser Leu Gln Glu Val Ala Ser Lys Ala Ala Val Leu Thr Glu Thr Pro
 565 570 575
 Arg Thr Ser Asp Gly Glu Lys Thr Leu Ile Glu Lys Met Phe Gly Gly
 580 585 590
 Lys Leu Arg Thr His Ile Arg Cys Leu Asn Cys Arg Ser Thr Ser Gln
 595 600 605
 Lys Val Glu Ala Phe Thr Asp Leu Ser Leu Ala Phe Cys Pro Ser Ser
 610 615 620
 Ser Leu Glu Asn Met Ser Val Gln Asp Pro Ala Ser Ser Pro Ser Ile
 625 630 635 640
 Gln Asp Gly Gly Leu Met Gln Ala Ser Val Pro Gly Pro Ser Glu Glu
 645 650 655
 Pro Val Val Tyr Asn Pro Thr Thr Ala Ala Phe Ile Cys Asp Ser Leu
 660 665 670
 Val Asn Glu Lys Thr Ile Gly Ser Pro Pro Asn Glu Phe Tyr Cys Ser
 675 680 685
 Glu Asn Thr Ser Val Pro Asn Glu Ser Asn Lys Ile Leu Val Asn Lys
 690 695 700
 Asp Val Pro Gln Lys Pro Gly Gly Glu Thr Thr Pro Ser Val Thr Asp
 705 710 715 720
 Leu Leu Asn Tyr Phe Leu Ala Pro Glu Ile Leu Thr Gly Asp Asn Gln
 725 730 735
 Tyr Tyr Cys Glu Asn Cys Ala Ser Leu Gln Asn Ala Glu Lys Thr Met
 740 745 750
 Gln Ile Thr Glu Glu Pro Glu Tyr Leu Ile Leu Thr Leu Leu Arg Phe
 755 760 765
 Ser Tyr Asp Gln Lys Tyr His Val Arg Arg Lys Ile Leu Asp Asn Val
 770 775 780
 Ser Leu Pro Leu Val Leu Glu Leu Pro Val Lys Arg Ile Thr Ser Phe
 785 790 795 800

Ser Ser Leu Ser Glu Ser Trp Ser Val Asp Val Asp Phe Thr Asp Leu
805 810 815

Ser Glu Asn Leu Ala Lys Lys Leu Lys Pro Ser Gly Thr Asp Glu Ala
820 825 830

Ser Cys Thr Lys Leu Val Pro Tyr Leu Leu Ser Ser Val Val Val His
835 840 845

Ser Gly Ile Ser Ser Glu Ser Gly His Tyr Tyr Ser Tyr Ala Arg Asn
850 855 860

Ile Thr Ser Thr Asp Ser Ser Tyr Gln Met Tyr His Gln Ser Glu Ala
865 870 875 880

Leu Ala Leu Ala Ser Ser Gln Ser His Leu Leu Gly Arg Asp Ser Pro
885 890 895

Ser Ala Val Phe Glu Gln Asp Leu Glu Asn Lys Glu Met Ser Lys Glu
900 905 910

Trp Phe Leu Phe Asn Asp Ser Arg Val Thr Phe Thr Ser Phe Gln Ser
915 920 925

Val Gln Lys Ile Thr Ser Arg Phe Pro Lys Asp Thr Ala Tyr Val Leu
930 935 940

Leu Tyr Lys Lys Gln His Ser Thr Asn Gly Leu Ser Gly Asn Asn Pro
945 950 955 960

Thr Ser Gly Leu Trp Ile Asn Gly Asp Pro Pro Leu Gln Lys Glu Leu
965 970 975

Met Asp Ala Ile Thr Lys Asp Asn Lys Leu Tyr Leu Gln Glu Gln Glu
980 985 990

Leu Asn Ala Arg Ala Arg Ala Leu Gln Ala Ala Ser Ala Ser Cys Ser
995 1000 1005

Phe Arg Pro Asn Gly Phe Asp Asp Asn Asp Pro Pro Gly Ser Cys Gly
1010 1015 1020

Pro Thr Gly Gly Gly Gly Gly Gly Gly Gly Phe Asn Thr Val Gly Arg Leu
1025 1030 1035 1040

Val Phe

<210> 75

<211> 1033

<212> PRT

<213> Homo sapiens

<400> 75

Met Ala Pro Arg Leu Gln Leu Glu Lys Ala Ala Trp Arg Trp Ala Glu
1 5 10 15

Thr Val Arg Pro Glu Glu Val Ser Gln Glu His Ile Glu Thr Ala Tyr
 20 25 30
 Arg Ile Trp Leu Glu Pro Cys Ile Arg Gly Val Cys Arg Arg Asn Cys
 35 40 45
 Lys Gly Asn Pro Asn Cys Leu Val Gly Ile Gly Glu His Ile Trp Leu
 50 55 60
 Gly Glu Ile Asp Glu Asn Ser Phe His Asn Ile Asp Asp Pro Asn Cys
 65 70 75 80
 Glu Arg Arg Lys Lys Asn Ser Phe Val Gly Leu Thr Asn Leu Gly Ala
 85 90 95
 Thr Cys Tyr Val Asn Thr Phe Leu Gln Val Trp Phe Leu Asn Leu Glu
 100 105 110
 Leu Arg Gln Ala Leu Tyr Leu Cys Pro Ser Thr Cys Ser Asp Tyr Met
 115 120 125
 Leu Gly Asp Gly Ile Gln Glu Glu Lys Asp Tyr Glu Pro Gln Thr Ile
 130 135 140
 Cys Glu His Leu Gln Tyr Leu Phe Ala Leu Leu Gln Asn Ser Asn Arg
 145 150 155 160
 Arg Tyr Ile Asp Pro Ser Gly Phe Val Lys Ala Leu Gly Leu Asp Thr
 165 170 175
 Gly Gln Gln Gln Asp Ala Gln Glu Phe Ser Lys Leu Phe Met Ser Leu
 180 185 190
 Leu Glu Asp Thr Leu Ser Lys Gln Lys Asn Pro Asp Val Arg Asn Ile
 195 200 205
 Val Gln Gln Gln Phe Cys Gly Glu Tyr Ala Tyr Val Thr Val Cys Asn
 210 215 220
 Gln Cys Gly Arg Glu Ser Lys Leu Leu Ser Lys Phe Tyr Glu Leu Glu
 225 230 235 240
 Leu Asn Ile Gln Gly His Lys Gln Leu Thr Asp Cys Ile Ser Glu Phe
 245 250 255
 Leu Lys Glu Glu Lys Leu Glu Gly Asp Asn Arg Tyr Phe Cys Glu Asn
 260 265 270
 Cys Gln Ser Lys Gln Asn Ala Thr Arg Lys Ile Arg Leu Leu Ser Leu
 275 280 285
 Pro Cys Thr Leu Asn Leu Gln Leu Met Arg Phe Val Phe Asp Arg Gln
 290 295 300
 Thr Gly His Lys Lys Lys Leu Asn Thr Tyr Ile Gly Phe Ser Glu Ile
 305 310 315 320

Leu Asp Met Glu Pro Tyr Val Glu His Lys Gly Gly Ser Tyr Val Tyr
 325 330 335
 Glu Leu Ser Ala Val Leu Ile His Arg Gly Val Ser Ala Tyr Ser Gly
 340 345 350
 His Tyr Ile Ala His Val Lys Asp Pro Gln Ser Gly Glu Trp Tyr Lys
 355 360 365
 Phe Asn Asp Glu Asp Ile Glu Lys Met Glu Gly Lys Lys Leu Gln Leu
 370 375 380
 Gly Ile Glu Glu Asp Leu Glu Pro Ser Lys Ser Gln Thr Arg Lys Pro
 385 390 395 400
 Lys Cys Gly Lys Gly Thr His Cys Ser Arg Asn Ala Tyr Met Leu Val
 405 410 415
 Tyr Arg Leu Gln Thr Gln Glu Lys Pro Asn Thr Thr Val Gln Val Pro
 420 425 430
 Ala Phe Leu Gln Glu Leu Val Asp Arg Asp Asn Ser Lys Phe Glu Glu
 435 440 445
 Trp Cys Ile Glu Met Ala Glu Met Arg Lys Gln Ser Val Asp Lys Gly
 450 455 460
 Lys Ala Lys His Glu Glu Val Lys Glu Leu Tyr Gln Arg Leu Pro Ala
 465 470 475 480
 Gly Ala Glu Pro Tyr Glu Phe Val Ser Leu Glu Trp Leu Gln Lys Trp
 485 490 495
 Leu Asp Glu Ser Thr Pro Thr Lys Pro Ile Asp Asn His Ala Cys Leu
 500 505 510
 Cys Ser His Asp Lys Leu His Pro Asp Lys Ile Ser Ile Met Lys Arg
 515 520 525
 Ile Ser Glu Tyr Ala Ala Asp Ile Phe Tyr Ser Arg Tyr Gly Gly Gly
 530 535 540
 Pro Arg Leu Thr Val Lys Ala Leu Cys Lys Glu Cys Val Val Glu Arg
 545 550 555 560
 Cys Arg Ile Leu Arg Leu Lys Asn Gln Leu Asn Glu Asp Tyr Lys Thr
 565 570 575
 Val Asn Asn Leu Leu Lys Ala Ala Val Lys Gly Asp Gly Phe Trp Val
 580 585 590
 Gly Lys Ser Ser Leu Arg Ser Trp Arg Gln Leu Ala Leu Glu Gln Leu
 595 600 605
 Asp Glu Gln Asp Gly Asp Ala Glu Gln Ser Asn Gly Lys Met Asn Gly
 610 615 620

Ser Thr Leu Asn Lys Asp Glu Ser Lys Glu Glu Arg Lys Glu Glu Glu
 625 630 635 640
 Glu Leu Asn Phe Asn Glu Asp Ile Leu Cys Pro His Gly Glu Leu Cys
 645 650 655
 Ile Ser Glu Asn Glu Arg Arg Leu Val Ser Lys Glu Ala Trp Ser Lys
 660 665 670
 Leu Gln Gln Tyr Phe Pro Lys Ala Pro Glu Phe Pro Ser Tyr Lys Glu
 675 680 685
 Cys Cys Ser Gln Cys Lys Ile Leu Glu Arg Glu Gly Glu Glu Asn Glu
 690 695 700
 Ala Leu His Lys Met Ile Ala Asn Glu Gln Lys Thr Ser Leu Pro Asn
 705 710 715 720
 Leu Phe Gln Asp Lys Asn Arg Pro Cys Leu Ser Asn Trp Pro Glu Asp
 725 730 735
 Thr Asp Val Leu Tyr Ile Val Ser Gln Phe Phe Val Glu Glu Trp Arg
 740 745- 750
 Lys Phe Val Arg Lys Pro Thr Arg Cys Ser Pro Val Ser Ser Val Gly
 755 760 765
 Asn Ser Ala Leu Leu Cys Pro His Gly Gly Leu Met Phe Thr Phe Ala
 770 775 780
 Ser Met Thr Lys Glu Asp Ser Lys Leu Ile Ala Leu Ile Trp Pro Ser
 785 790 795 800
 Glu Trp Gln Met Ile Gln Lys Leu Phe Val Val Asp His Val Ile Lys
 805 810 815
 Ile Thr Arg Ile Glu Val Gly Asp Val Asn Pro Ser Glu Thr Gln Tyr
 820 825 830
 Ile Ser Glu Pro Lys Leu Cys Pro Glu Cys Arg Glu Gly Leu Leu Cys
 835 840 845
 Gln Gln Gln Arg Asp Leu Arg Glu Tyr Thr Gln Ala Thr Ile Tyr Val
 850 855 860
 His Lys Val Val Asp Asn Lys Lys Val Met Lys Asp Ser Ala Pro Glu
 865 870 875 880
 Leu Asn Val Ser Ser Ser Glu Thr Glu Glu Asp Lys Glu Glu Ala Lys
 885 890 895
 Pro Asp Gly Glu Lys Asp Pro Asp Phe Asn Gln Ser Asn Gly Gly Thr
 900 905 910
 Lys Arg Gln Lys Ile Ser His Gln Asn Tyr Ile Ala Tyr Gln Lys Gln
 915 920 925

Val Ile Arg Arg Ser Met Arg His Arg Lys Val Arg Gly Glu Lys Ala
 930 935 940

Leu Leu Val Ser Ala Asn Gln Thr Leu Lys Glu Leu Lys Ile Gln Ile
 945 950 955 960

Met His Ala Phe Ser Val Ala Pro Phe Asp Gln Asn Leu Ser Ile Asp
 965 970 975

Gly Lys Ile Leu Ser Asp Asp Cys Ala Thr Leu Gly Thr Leu Gly Val
 980 985 990

Ile Pro Glu Ser Val Ile Leu Leu Lys Ala Asp Glu Pro Ile Ala Asp
 995 1000 1005

Tyr Ala Ala Met Asp Asp Val Met Gln Val Cys Met Pro Glu Glu Gly
 1010 1015 1020

Phe Lys Gly Thr Gly Leu Leu Gly His
 1025 1030

<210> 76
 <211> 517
 <212> PRT
 <213> Homo sapiens

<400> 76
 Met Leu Ser Ser Arg Ala Glu Ala Ala Met Thr Ala Ala Asp Arg Ala
 1 5 10 15

Ile Gln Arg Phe Leu Arg Thr Gly Ala Ala Val Arg Tyr Lys Val Met
 20 25 30

Lys Asn Trp Gly Val Ile Gly Gly Ile Ala Ala Ala Leu Ala Ala Gly
 35 40 45

Ile Tyr Val Ile Trp Gly Pro Ile Thr Glu Arg Lys Lys Arg Arg Lys
 50 55 60

Gly Leu Val Pro Gly Leu Val Asn Leu Gly Asn Thr Cys Phe Met Asn
 65 70 75 80

Ser Leu Leu Gln Gly Leu Ser Ala Cys Pro Ala Phe Ile Arg Trp Leu
 85 90 95

Glu Glu Phe Thr Ser Gln Tyr Ser Arg Asp Gln Lys Glu Pro Pro Ser
 100 105 110

His Gln Tyr Leu Ser Leu Thr Leu Leu His Leu Leu Lys Ala Leu Ser
 115 120 125

Cys Gln Glu Val Thr Asp Asp Glu Val Leu Asp Ala Ser Cys Leu Leu
 130 135 140

Asp Val Leu Arg Met Tyr Arg Trp Gln Ile Ser Ser Phe Glu Glu Gln
 145 150 155 160

Asp	Ala	His	Glu	Leu	Phe	His	Val	Ile	Thr	Ser	Ser	Leu	Glu	Asp	Glu	165	170	175
Arg	Asp	Arg	Gln	Pro	Arg	Val	Thr	His	Leu	Phe	Asp	Val	His	Ser	Leu	180	185	190
Glu	Gln	Gln	Ser	Glu	Ile	Thr	Pro	Lys	Gln	Ile	Thr	Cys	Arg	Thr	Arg	195	200	205
Gly	Ser	Pro	His	Pro	Thr	Ser	Asn	His	Trp	Lys	Ser	Gln	His	Pro	Phe	210	215	220
His	Gly	Arg	Leu	Thr	Ser	Asn	Met	Val	Cys	Lys	His	Cys	Glu	His	Gln	225	230	235
Ser	Pro	Val	Arg	Phe	Asp	Thr	Phe	Asp	Ser	Leu	Ser	Leu	Ser	Ile	Pro	245	250	255
Ala	Ala	Thr	Trp	Gly	His	Pro	Leu	Thr	Leu	Asp	His	Cys	Leu	His	His	260	265	270
Phe	Ile	Ser	Ser	Glu	Ser	Val	Arg	Asp	Val	Val	Cys	Asp	Asn	Cys	Thr	275	280	285
Lys	Ile	Glu	Ala	Lys	Gly	Thr	Leu	Asn	Gly	Glu	Lys	Val	Glu	His	Gln	290	295	300
Arg	Thr	Thr	Phe	Val	Lys	Gln	Leu	Lys	Leu	Gly	Lys	Leu	Pro	Gln	Cys	305	310	315
Leu	Cys	Ile	His	Leu	Gln	Arg	Leu	Ser	Trp	Ser	Ser	His	Gly	Thr	Pro	325	330	335
Leu	Lys	Arg	His	Glu	His	Val	Gln	Phe	Asn	Glu	Phe	Leu	Met	Met	Asp	340	345	350
Ile	Tyr	Lys	Tyr	His	Leu	Leu	Gly	His	Lys	Pro	Ser	Gln	His	Asn	Pro	355	360	365
Lys	Leu	Asn	Lys	Asn	Pro	Gly	Pro	Thr	Leu	Glu	Leu	Gln	Asp	Gly	Pro	370	375	380
Gly	Ala	Pro	Thr	Pro	Val	Leu	Asn	Gln	Pro	Gly	Ala	Pro	Lys	Thr	Gln	385	390	395
Ile	Phe	Met	Asn	Gly	Ala	Cys	Ser	Pro	Ser	Leu	Leu	Pro	Thr	Leu	Ser	405	410	415
Ala	Pro	Met	Pro	Phe	Pro	Leu	Pro	Val	Val	Pro	Asp	Tyr	Ser	Ser	Ser	420	425	430
Thr	Tyr	Leu	Phe	Arg	Leu	Met	Ala	Val	Val	Val	His	His	Gly	Asp	Met	435	440	445
His	Ser	Gly	His	Phe	Val	Thr	Tyr	Arg	Arg	Ser	Pro	Pro	Ser	Ala	Arg	450	455	460

Asn Pro Leu Ser Thr Ser Asn Gln Trp Leu Trp Val Ser Asp Asp Thr
 465 470 475 480

Val Arg Lys Ala Ser Leu Gln Glu Val Leu Ser Ser Ser Ala Tyr Leu
 485 490 495

Leu Phe Tyr Glu Arg Val Leu Ser Arg Met Gln His Gln Ser Gln Glu
 500 505 510

Cys Lys Ser Glu Glu
 515

<210> 77

<211> 1123

<212> PRT

<213> Homo sapiens

<400> 77

Met Asp Leu Gly Pro Gly Asp Ala Ala Gly Gly Gly Pro Leu Ala Pro
 1 5 10 15

Arg Pro Arg Arg Arg Arg Ser Leu Arg Arg Leu Phe Ser Arg Phe Leu
 20 25 30

Leu Ala Leu Gly Ser Arg Ser Arg Pro Gly Asp Ser Pro Pro Arg Pro
 35 40 45

Gln Pro Gly His Cys Asp Gly Asp Gly Glu Gly Gly Phe Ala Cys Ala
 50 55 60

Pro Gly Pro Val Pro Ala Ala Pro Gly Ser Pro Gly Glu Glu Arg Pro
 65 70 75 80

Pro Gly Pro Gln Pro Gln Leu Gln Leu Pro Ala Gly Asp Gly Ala Arg
 85 90 95

Pro Pro Gly Ala Gln Gly Leu Lys Asn His Gly Asn Thr Cys Phe Met
 100 105 110

Asn Ala Val Val Gln Cys Leu Ser Asn Thr Asp Leu Leu Ala Glu Phe
 115 120 125

Leu Ala Leu Gly Arg Tyr Arg Ala Ala Pro Gly Arg Ala Glu Val Thr
 130 135 140

Glu Gln Leu Ala Ala Leu Val Arg Ala Leu Trp Thr Arg Glu Tyr Thr
 145 150 155 160

Pro Gln Leu Ser Ala Glu Phe Lys Asn Ala Val Ser Lys Tyr Gly Ser
 165 170 175

Gln Phe Gln Gly Asn Ser Gln His Asp Ala Leu Glu Phe Leu Leu Trp
 180 185 190

Leu Leu Asp Arg Val His Glu Asp Leu Glu Gly Ser Ser Arg Gly Pro
 195 200 205

Val	Ser	Glu	Lys	Leu	Pro	Pro	Glu	Ala	Thr	Lys	Thr	Ser	Glu	Asn	Cys	210	215	220	
Leu	Ser	Pro	Ser	Ala	Gln	Leu	Pro	Leu	Gly	Gln	Ser	Phe	Val	Gln	Ser	225	230	235	240
His	Phe	Gln	Ala	Gln	Tyr	Arg	Ser	Ser	Leu	Thr	Cys	Pro	His	Cys	Leu	245	250	255	
Lys	Gln	Ser	Asn	Thr	Phe	Asp	Pro	Phe	Leu	Cys	Val	Ser	Leu	Pro	Ile	260	265	270	
Pro	Leu	Arg	Gln	Thr	Arg	Phe	Leu	Ser	Val	Thr	Leu	Val	Phe	Pro	Ser	275	280	285	
Lys	Ser	Gln	Arg	Phe	Leu	Arg	Val	Gly	Leu	Ala	Val	Pro	Ile	Leu	Ser	290	295	300	
Thr	Val	Ala	Ala	Leu	Arg	Lys	Met	Val	Ala	Glu	Glu	Gly	Gly	Val	Pro	305	310	315	320
Ala	Asp	Glu	Val	Ile	Leu	Val	Glu	Leu	Tyr	Pro	Ser	Gly	Phe	Gln	Arg	325	330	335	
Ser	Phe	Phe	Asp	Glu	Glu	Asp	Leu	Asn	Thr	Ile	Ala	Glu	Gly	Asp	Asn	340	345	350	
Val	Tyr	Ala	Phe	Gln	Val	Pro	Pro	Ser	Pro	Ser	Gln	Gly	Thr	Leu	Ser	355	360	365	
Ala	His	Pro	Leu	Gly	Leu	Ser	Ala	Ser	Pro	Arg	Leu	Ala	Ala	Arg	Glu	370	375	380	
Gly	Gln	Arg	Phe	Ser	Leu	Ser	Leu	His	Ser	Glu	Ser	Lys	Val	Leu	Ile	385	390	395	400
Leu	Phe	Cys	Asn	Leu	Val	Gly	Ser	Gly	Gln	Gln	Ala	Ser	Arg	Phe	Gly	405	410	415	
Pro	Pro	Phe	Leu	Ile	Arg	Glu	Asp	Arg	Ala	Val	Ser	Trp	Ala	Gln	Leu	420	425	430	
Gln	Gln	Ser	Ile	Leu	Ser	Lys	Val	Arg	His	Leu	Met	Lys	Ser	Glu	Ala	435	440	445	
Pro	Val	Gln	Asn	Leu	Gly	Ser	Leu	Phe	Ser	Ile	Arg	Val	Val	Gly	Leu	450	455	460	
Ser	Val	Ala	Cys	Ser	Tyr	Leu	Ser	Pro	Lys	Asp	Ser	Arg	Pro	Leu	Cys	465	470	475	480
His	Trp	Ala	Val	Asp	Arg	Val	Leu	His	Leu	Arg	Arg	Pro	Gly	Gly	Pro	485	490	495	
Pro	His	Val	Lys	Leu	Ala	Val	Glu	Trp	Asp	Ser	Ser	Val	Lys	Glu	Arg	500	505	510	

Leu Phe Gly Ser Leu Gln Glu Glu Arg Ala Gln Asp Ala Asp Ser Val
 515 520 525
 Trp Gln Gln Gln Gln Ala His Gln Gln His Ser Cys Thr Leu Asp Glu
 530 535 540
 Cys Phe Gln Phe Tyr Thr Lys Glu Glu Gln Leu Ala Gln Asp Asp Ala
 545 550 555 560
 Trp Lys Cys Pro His Cys Gln Val Leu Gln Gln Gly Met Val Lys Leu
 565 570 575
 Ser Leu Trp Thr Leu Pro Asp Ile Leu Ile Ile His Leu Lys Arg Phe
 580 585 590
 Cys Gln Val Gly Glu Arg Arg Asn Lys Leu Ser Thr Leu Val Lys Phe
 595 600 605
 Pro Leu Ser Gly Leu Asn Met Ala Pro His Val Ala Gln Arg Ser Thr
 610 615 620
 Ser Pro Glu Ala Gly Leu Gly Pro Trp Pro Ser Trp Lys Gln Pro Asp
 625 630 635 640
 Cys Leu Pro Thr Ser Tyr Pro Leu Asp Phe Leu Tyr Asp Leu Tyr Ala
 645 650 655
 Val Cys Asn His His Gly Asn Leu Gln Gly Gly His Tyr Thr Ala Tyr
 660 665 670
 Cys Arg Asn Ser Leu Asp Gly Gln Trp Tyr Ser Tyr Asp Asp Ser Thr
 675 680 685
 Val Glu Pro Leu Arg Glu Asp Glu Val Asn Thr Arg Gly Ala Tyr Ile
 690 695 700
 Leu Phe Tyr Gln Lys Arg Asn Ser Ile Pro Pro Trp Ser Ala Ser Ser
 705 710 715 720
 Ser Met Arg Gly Ser Thr Ser Ser Ser Leu Ser Asp His Trp Leu Leu
 725 730 735
 Arg Leu Gly Ser His Ala Gly Ser Thr Arg Gly Ser Leu Leu Ser Trp
 740 745 750
 Ser Ser Ala Pro Cys Pro Ser Leu Pro Gln Val Pro Asp Ser Pro Ile
 755 760 765
 Phe Thr Asn Ser Leu Cys Asn Gln Glu Lys Gly Gly Leu Glu Pro Arg
 770 775 780
 Arg Leu Val Arg Gly Val Lys Gly Arg Ser Ile Ser Met Lys Ala Pro
 785 790 795 800
 Thr Thr Ser Arg Ala Lys Gln Gly Pro Phe Lys Thr Met Pro Leu Arg
 805 810 815

Trp Ser Phe Gly Ser Lys Glu Lys Pro Pro Gly Ala Ser Val Glu Leu
 820 825 830
 Val Glu Tyr Leu Glu Ser Arg Arg Arg Pro Arg Ser Thr Ser Gln Ser
 835 840 845
 Ile Val Ser Leu Leu Thr Gly Thr Ala Gly Glu Asp Glu Lys Ser Ala
 850 855 860
 Ser Pro Arg Ser Asn Val Ala Leu Pro Ala Asn Ser Glu Asp Gly Gly
 865 870 875 880
 Arg Ala Ile Glu Arg Gly Pro Ala Gly Val Pro Cys Pro Ser Ala Gln
 885 890 895
 Pro Asn His Cys Leu Ala Pro Gly Asn Ser Asp Gly Pro Asn Thr Ala
 900 905 910
 Arg Lys Leu Lys Glu Asn Ala Gly Gln Asp Ile Lys Leu Pro Arg Lys
 915 920 925
 Phe Asp Leu Pro Leu Thr Val Met Pro Ser Val Glu His Glu Lys Pro
 930 935 940
 Ala Arg Pro Glu Gly Gln Lys Ala Met Asn Trp Lys Glu Ser Phe Gln
 945 950 955 960
 Met Gly Ser Lys Ser Ser Pro Pro Ser Pro Tyr Met Gly Phe Ser Gly
 965 970 975
 Asn Ser Lys Asp Ser Arg Arg Gly Thr Ser Glu Leu Asp Arg Pro Leu
 980 985 990
 Gln Gly Thr Leu Thr Leu Leu Arg Ser Val Phe Arg Lys Lys Glu Asn
 995 1000 1005
 Arg Arg Asn Glu Arg Ala Glu Val Ser Pro Gln Val Pro Pro Val Ser
 1010 1015 1020
 Leu Val Ser Gly Gly Leu Ser Pro Ala Met Asp Gly Gln Ala Pro Gly
 1025 1030 1035 1040
 Ser Pro Pro Ala Leu Arg Ile Pro Glu Gly Leu Ala Arg Gly Leu Gly
 1045 1050 1055
 Ser Arg Leu Glu Arg Asp Val Trp Ser Ala Pro Ser Ser Leu Arg Leu
 1060 1065 1070
 Pro Arg Lys Ala Ser Arg Ala Pro Arg Gly Ser Ala Leu Gly Met Ser
 1075 1080 1085
 Gln Arg Thr Val Pro Gly Glu Gln Ala Ser Tyr Gly Thr Phe Gln Arg
 1090 1095 1100
 Val Lys Tyr His Thr Leu Ser Leu Gly Arg Lys Lys Thr Leu Pro Glu
 1105 1110 1115 1120
 Ser Ser Phe

<210> 78
 <211> 261
 <212> PRT
 <213> Homo sapiens

<400> 78

Met	Gln	Leu	Val	Ile	Leu	Arg	Val	Thr	Ile	Phe	Leu	Pro	Trp	Cys	Phe
1				5					10					15	
Ala	Val	Pro	Val	Pro	Pro	Ala	Ala	Asp	His	Lys	Gly	Trp	Asp	Phe	Val
			20					25					30		
Glu	Gly	Tyr	Phe	His	Gln	Phe	Phe	Leu	Thr	Lys	Lys	Glu	Ser	Pro	Leu
		35					40					45			
Leu	Thr	Gln	Glu	Thr	Gln	Thr	Gln	Leu	Leu	Gln	Gln	Phe	His	Arg	Asn
	50					55					60				
Gly	Thr	Asp	Leu	Leu	Asp	Met	Gln	Met	His	Ala	Leu	Leu	His	Gln	Pro
65					70					75					80
His	Cys	Gly	Val	Pro	Asp	Gly	Ser	Asp	Thr	Ser	Ile	Ser	Pro	Gly	Arg
				85					90					95	
Cys	Lys	Trp	Asn	Lys	His	Thr	Leu	Thr	Tyr	Arg	Ile	Ile	Asn	Tyr	Pro
			100					105					110		
His	Asp	Met	Lys	Pro	Ser	Ala	Val	Lys	Asp	Ser	Ile	Tyr	Asn	Ala	Val
	115						120					125			
Ser	Ile	Trp	Ser	Asn	Val	Thr	Pro	Leu	Ile	Phe	Gln	Gln	Val	Gln	Asn
	130					135					140				
Gly	Asp	Ala	Asp	Ile	Lys	Val	Ser	Phe	Trp	Gln	Trp	Ala	His	Glu	Asp
145					150					155				160	
Gly	Trp	Pro	Phe	Asp	Gly	Pro	Gly	Gly	Ile	Leu	Gly	His	Ala	Phe	Leu
				165					170					175	
Pro	Asn	Ser	Gly	Asn	Pro	Gly	Val	Val	His	Phe	Asp	Lys	Asn	Glu	His
			180				185						190		
Trp	Ser	Ala	Ser	Asp	Thr	Gly	Tyr	Asn	Leu	Phe	Leu	Val	Ala	Thr	His
		195				200						205			
Glu	Ile	Gly	His	Ser	Leu	Gly	Leu	Gln	His	Ser	Gly	Asn	Gln	Ser	Ser
	210					215					220				
Ile	Met	Tyr	Pro	Thr	Tyr	Trp	Tyr	His	Asp	Pro	Arg	Thr	Phe	Gln	Leu
225					230					235					240
Ser	Ala	Asp	Asp	Ile	Gln	Arg	Ile	Gln	His	Leu	Tyr	Gly	Glu	Lys	Cys
				245				250						255	

Ser Ser Asp Ile Pro
260

<210> 79

<211> 483

<212> PRT

<213> Homo sapiens

<400> 79

Met Lys Val Leu Pro Ala Ser Gly Leu Ala Val Phe Leu Ile Met Ala
1 5 10 15

Leu Lys Phe Ser Thr Ala Ala Pro Ser Leu Val Ala Ala Ser Pro Arg
20 25 30

Thr Trp Arg Asn Asn Tyr Arg Leu Ala Gln Ala Tyr Leu Asp Lys Tyr
35 40 45

Tyr Thr Asn Lys Glu Gly His Gln Ile Gly Glu Met Val Ala Arg Gly
50 55 60

Ser Asn Ser Met Ile Arg Lys Ile Lys Glu Leu Gln Ala Phe Phe Gly
65 70 75 80

Leu Gln Val Thr Gly Lys Leu Asp Gln Thr Thr Met Asn Val Ile Lys
85 90 95

Lys Pro Arg Cys Gly Val Pro Asp Val Ala Asn Tyr Arg Leu Phe Pro
100 105 110

Gly Glu Pro Lys Trp Lys Lys Asn Thr Leu Thr Tyr Arg Ile Ser Lys
115 120 125

Tyr Thr Pro Ser Met Ser Ser Val Glu Val Asp Lys Ala Val Glu Met
130 135 140

Ala Leu Gln Ala Trp Ser Ser Ala Val Pro Leu Ser Phe Val Arg Ile
145 150 155 160

Asn Ser Gly Glu Ala Asp Ile Met Ile Ser Phe Glu Asn Gly Asp His
165 170 175

Gly Asp Ser Tyr Pro Phe Asp Gly Pro Arg Gly Thr Leu Ala His Ala
180 185 190

Phe Ala Pro Gly Glu Gly Leu Gly Gly Asp Thr His Phe Asp Asn Pro
195 200 205

Glu Lys Trp Thr Met Gly Thr Asn Gly Phe Asn Leu Phe Thr Val Ala
210 215 220

Ala His Glu Phe Gly His Ala Leu Gly Leu Ala His Ser Thr Asp Pro
225 230 235 240

Ser Ala Leu Met Tyr Pro Thr Tyr Lys Tyr Lys Asn Pro Tyr Gly Phe
245 250 255

His Leu Pro Lys Asp Asp Val Lys Gly Ile Gln Ala Leu Tyr Gly Pro
 260 265 270
 Arg Lys Val Phe Leu Gly Lys Pro Thr Leu Pro His Ala Pro His His
 275 280 285
 Lys Pro Ser Ile Pro Asp Leu Cys Asp Ser Ser Ser Ser Phe Asp Ala
 290 295 300
 Val Thr Met Leu Gly Lys Glu Leu Leu Leu Phe Lys Asp Arg Ile Phe
 305 310 315 320
 Trp Arg Arg Gln Val His Leu Arg Thr Gly Ile Arg Pro Ser Thr Ile
 325 330 335
 Thr Ser Ser Phe Pro Gln Leu Met Ser Asn Val Asp Ala Ala Tyr Glu
 340 345 350
 Val Ala Glu Arg Gly Thr Ala Tyr Phe Phe Lys Gly Pro His Tyr Trp
 355 360 365
 Ile Thr Arg Gly Phe Gln Met Gln Gly Pro Pro Arg Thr Ile Tyr Asp
 370 375 380
 Phe Gly Phe Pro Arg His Val Gln Gln Ile Asp Ala Ala Val Tyr Leu
 385 390 395 400
 Arg Glu Pro Gln Lys Thr Leu Phe Phe Val Gly Asp Glu Tyr Tyr Ser
 405 410 415
 Tyr Asp Glu Arg Lys Arg Lys Met Glu Lys Asp Tyr Pro Lys Asn Thr
 420 425 430
 Glu Glu Glu Phe Ser Gly Val Asn Gly Gln Ile Asp Ala Ala Val Glu
 435 440 445
 Leu Asn Gly Tyr Ile Tyr Phe Phe Ser Gly Pro Lys Thr Tyr Lys Tyr
 450 455 460
 Asp Thr Glu Lys Glu Asp Val Val Ser Val Val Lys Ser Ser Ser Trp
 465 470 475 480
 Ile Gly Cys

<210> 80
 <211> 765
 <212> PRT
 <213> Homo sapiens

<400> 80
 Met Asn Val Ala Leu Gln Glu Leu Gly Ala Gly Ser Asn Met Val Glu
 1 5 10 15
 Tyr Lys Arg Ala Thr Leu Arg Asp Glu Asp Ala Pro Glu Thr Pro Val
 20 25 30

Glu	Gly	Gly	Ala	Ser	Pro	Asp	Ala	Met	Glu	Val	Gly	Phe	Gln	Lys	Gly
35						40				45					
Thr	Arg	Gln	Leu	Leu	Gly	Ser	Arg	Thr	Gln	Leu	Glu	Leu	Val	Leu	Ala
50						55				60					
Gly	Ala	Ser	Leu	Leu	Leu	Ala	Ala	Leu	Leu	Leu	Gly	Cys	Leu	Val	Ala
65				70				75						80	
Leu	Gly	Val	Gln	Tyr	His	Arg	Asp	Pro	Ser	His	Ser	Thr	Cys	Leu	Thr
				85				90						95	
Glu	Ala	Cys	Ile	Arg	Val	Ala	Gly	Lys	Ile	Leu	Glu	Ser	Leu	Asp	Arg
		100						105				110			
Gly	Val	Ser	Pro	Cys	Glu	Asp	Phe	Tyr	Gln	Phe	Ser	Cys	Gly	Gly	Trp
		115				120						125			
Ile	Arg	Arg	Asn	Pro	Leu	Pro	Asp	Gly	Arg	Ser	Arg	Trp	Asn	Thr	Phe
130						135				140					
Asn	Ser	Leu	Trp	Asp	Gln	Asn	Gln	Ala	Ile	Leu	Lys	His	Leu	Leu	Glu
145				150						155				160	
Asn	Thr	Thr	Phe	Asn	Ser	Ser	Ser	Glu	Ala	Glu	Gln	Lys	Thr	Gln	Arg
				165				170						175	
Phe	Tyr	Leu	Ser	Cys	Leu	Gln	Val	Glu	Arg	Ile	Glu	Glu	Leu	Gly	Ala
		180						185				190			
Gln	Pro	Leu	Arg	Asp	Leu	Ile	Glu	Lys	Ile	Gly	Gly	Trp	Asn	Ile	Thr
195						200						205			
Gly	Pro	Trp	Asp	Gln	Asp	Asn	Phe	Met	Glu	Val	Leu	Lys	Ala	Val	Ala
210						215				220					
Gly	Thr	Tyr	Arg	Ala	Thr	Pro	Phe	Phe	Thr	Val	Tyr	Ile	Ser	Ala	Asp
225				230						235				240	
Ser	Lys	Ser	Ser	Asn	Ser	Asn	Val	Ile	Gln	Val	Asp	Gln	Ser	Gly	Leu
				245				250						255	
Phe	Leu	Pro	Ser	Arg	Asp	Tyr	Tyr	Leu	Asn	Arg	Thr	Ala	Asn	Glu	Lys
		260				265						270			
Val	Leu	Thr	Ala	Tyr	Leu	Asp	Tyr	Met	Glu	Glu	Leu	Gly	Met	Leu	Leu
275						280				285					
Gly	Gly	Arg	Pro	Thr	Ser	Thr	Arg	Glu	Gln	Met	Gln	Gln	Val	Leu	Glu
290						295				300					
Leu	Glu	Ile	Gln	Leu	Ala	Asn	Ile	Thr	Val	Pro	Gln	Asp	Gln	Arg	Arg
305				310				315						320	
Asp	Glu	Glu	Lys	Ile	Tyr	His	Lys	Met	Ser	Ile	Ser	Glu	Leu	Gln	Ala
				325				330						335	

Leu Ala Pro Ser Met Asp Trp Leu Glu Phe Leu Ser Phe Leu Leu Ser
 340 345 350
 Pro Leu Glu Leu Ser Asp Ser Glu Pro Val Val Val Tyr Gly Met Asp
 355 360 365
 Tyr Leu Gln Gln Val Ser Glu Leu Ile Asn Arg Thr Glu Pro Ser Ile
 370 375 380
 Leu Asn Asn Tyr Leu Ile Trp Asn Leu Val Gln Lys Thr Thr Ser Ser
 385 390 395 400
 Leu Asp Arg Arg Phe Glu Ser Ala Gln Glu Lys Leu Leu Glu Thr Leu
 405 410 415
 Tyr Gly Thr Lys Lys Ser Cys Val Pro Arg Trp Gln Thr Cys Ile Ser
 420 425 430
 Asn Thr Asp Asp Ala Leu Gly Phe Ala Leu Gly Ser Leu Phe Val Lys
 435 440 445
 Ala Thr Phe Asp Arg Gln Ser Lys Glu Ile Ala Glu Gly Met Ile Ser
 450 455 460
 Glu Ile Arg Thr Ala Phe Glu Glu Ala Leu Gly Gln Leu Val Trp Met
 465 470 475 480
 Asp Glu Lys Thr Arg Gln Ala Ala Lys Glu Lys Ala Asp Ala Ile Tyr
 485 490 495
 Asp Met Ile Gly Phe Pro Asp Phe Ile Leu Glu Pro Lys Glu Leu Asp
 500 505 510
 Asp Val Tyr Asp Gly Tyr Glu Ile Ser Glu Asp Ser Phe Phe Gln Asn
 515 520 525
 Met Leu Asn Leu Tyr Asn Phe Ser Ala Lys Val Met Ala Asp Gln Leu
 530 535 540
 Arg Lys Pro Pro Ser Arg Asp Gln Trp Ser Met Thr Pro Gln Thr Val
 545 550 555 560
 Asn Ala Tyr Tyr Leu Pro Thr Lys Asn Glu Ile Val Phe Pro Ala Gly
 565 570 575
 Ile Leu Gln Ala Pro Phe Tyr Ala Arg Asn His Pro Lys Ala Leu Asn
 580 585 590
 Phe Gly Gly Ile Gly Val Val Met Gly His Glu Leu Thr His Ala Phe
 595 600 605
 Asp Asp Gln Gly Arg Glu Tyr Asp Lys Glu Gly Asn Leu Arg Pro Trp
 610 615 620
 Trp Gln Asn Glu Ser Leu Ala Ala Phe Arg Asn His Thr Ala Cys Met
 625 630 635 640

Glu Glu Gln Tyr Asn Gln Tyr Gln Val Asn Gly Glu Arg Leu Asn Gly
 645 650 655
 Arg Gln Thr Leu Gly Glu Asn Ile Ala Asp Asn Gly Gly Leu Lys Ala
 660 665 670
 Ala Tyr Asn Ala Tyr Lys Ala Trp Leu Arg Lys His Gly Glu Glu Gln
 675 680 685
 Gln Leu Pro Ala Val Gly Leu Thr Asn His Gln Leu Phe Phe Val Gly
 690 695 700
 Phe Ala Gln Val Trp Cys Ser Val Arg Thr Pro Glu Ser Ser His Glu
 705 710 715 720
 Gly Leu Val Thr Asp Pro His Ser Pro Ala Arg Phe Arg Val Leu Gly
 725 730 735
 Thr Leu Ser Asn Ser Arg Asp Phe Leu Arg His Phe Gly Cys Pro Val
 740 745 750
 Gly Ser Pro Met Asn Pro Gly Gln Leu Cys Glu Val Trp
 755 760 765

<210> 81
 <211> 419
 <212> PRT
 <213> Homo sapiens

<400> 81
 Met Pro Glu Lys Arg Pro Phe Glu Arg Leu Pro Ala Asp Val Ser Pro
 1 5 10 15
 Ile Asn Cys Ser Leu Cys Leu Lys Pro Asp Leu Leu Asp Phe Thr Phe
 20 25 30
 Glu Gly Lys Leu Glu Ala Ala Ala Gln Val Arg Gln Ala Thr Asn Gln
 35 40 45
 Ile Val Met Asn Cys Ala Asp Ile Asp Ile Ile Thr Ala Ser Tyr Ala
 50 55 60
 Pro Glu Gly Asp Glu Glu Ile His Ala Thr Gly Phe Asn Tyr Gln Asn
 65 70 75 80
 Glu Asp Glu Lys Val Thr Leu Ser Phe Pro Ser Thr Leu Gln Thr Gly
 85 90 95
 Thr Gly Thr Leu Lys Ile Asp Phe Val Gly Glu Leu Asn Asp Lys Met
 100 105 110
 Lys Gly Phe Tyr Arg Ser Lys Tyr Thr Thr Pro Ser Gly Glu Val Arg
 115 120 125
 Tyr Ala Ala Val Thr Gln Phe Glu Ala Thr Asp Ala Arg Arg Ala Phe
 130 135 140

Pro Cys Trp Asp Glu Arg Ala Ile Lys Ala Thr Phe Asp Ile Ser Leu
 145 150 155 160
 Val Val Pro Lys Asp Arg Val Ala Leu Ser Asn Met Asn Val Ile Asp
 165 170 175
 Arg Lys Pro Tyr Pro Asp Asp Glu Asn Leu Val Glu Val Lys Phe Ala
 180 185 190
 Arg Thr Pro Val Thr Ser Thr Tyr Leu Val Ala Phe Val Val Gly Glu
 195 200 205
 Tyr Asp Phe Val Glu Thr Arg Ser Lys Asp Gly Val Cys Val Cys Val
 210 215 220
 Tyr Thr Pro Val Gly Lys Ala Glu Gln Gly Lys Phe Ala Leu Glu Val
 225 230 235 240
 Ala Ala Lys Thr Leu Pro Phe Tyr Asn Asp Tyr Phe Asn Val Pro Tyr
 245 250 255
 Pro Leu Pro Lys Ile Asp Leu Ile Ala Ile Ala Asp Phe Ala Ala Gly
 260 265 270
 Ala Met Glu Asn Trp Asp Leu Val Thr Tyr Arg Glu Thr Ala Leu Leu
 275 280 285
 Ile Asp Pro Lys Asn Ser Cys Ser Ser Ser Arg Gln Trp Val Ala Leu
 290 295 300
 Val Val Gly His Glu Leu Ala His Gln Trp Phe Gly Asn Leu Val Thr
 305 310 315 320
 Met Glu Trp Trp Thr His Leu Trp Leu Asn Glu Gly Phe Ala Ser Trp
 325 330 335
 Ile Glu Tyr Leu Cys Val Asp His Cys Phe Pro Glu Tyr Asp Ile Trp
 340 345 350
 Thr Gln Phe Val Ser Ala Asp Tyr Thr Arg Ala Gln Glu Leu Asp Ala
 355 360 365
 Leu Asp Asn Ser His Pro Ile Glu Val Ser Val Gly His Pro Ser Glu
 370 375 380
 Val Asp Glu Ile Phe Asp Ala Ile Ser Tyr Ser Lys Gly Ala Ser Val
 385 390 395 400
 Ile Arg Met Leu His Asp Tyr Ile Gly Asp Lys Val Lys Lys Lys Thr
 405 410 415
 Leu Ser Ile

<210> 82
 <211> 755
 <212> PRT

<213> Homo sapiens

<400> 82

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Met Arg Pro Ala Pro Ile Ala Leu Trp Leu Arg Leu Val Leu Ala Leu
 1           5           10           15

Ala Leu Val Arg Pro Arg Ala Val Gly Trp Ala Pro Val Arg Ala Pro
      20           25           30

Ile Tyr Val Ser Ser Trp Ala Val Gln Val Ser Gln Gly Asn Arg Glu
      35           40           45

Val Glu Arg Leu Ala Arg Lys Phe Gly Phe Val Asn Leu Gly Pro Ile
      50           55           60

Phe Pro Asp Gly Gln Tyr Phe His Leu Arg His Arg Gly Val Val Gln
      65           70           75           80

Gln Ser Leu Thr Pro His Trp Gly His His Leu His Leu Lys Lys Asn
      85           90           95

Pro Lys Val Gln Trp Phe Gln Gln Gln Thr Leu Gln Arg Arg Val Lys
      100          105          110

Arg Ser Val Val Val Pro Thr Asp Pro Trp Phe Ser Lys Gln Trp Tyr
      115          120          125

Met Asn Ser Glu Ala Gln Pro Asp Leu Ser Ile Leu Gln Ala Trp Ser
      130          135          140

Gln Gly Leu Ser Gly Gln Gly Ile Val Val Ser Val Leu Asp Asp Gly
      145          150          155          160

Ile Glu Lys Asp His Pro Asp Leu Trp Ala Asn Tyr Asp Pro Leu Ala
      165          170          175

Ser Tyr Asp Phe Asn Asp Tyr Asp Pro Asp Pro Gln Pro Arg Tyr Thr
      180          185          190

Pro Ser Lys Glu Asn Arg His Gly Thr Arg Cys Ala Gly Glu Val Ala
      195          200          205

Ala Met Ala Asn Asn Gly Phe Cys Gly Val Gly Val Ala Phe Asn Ala
      210          215          220

Arg Ile Gly Gly Val Arg Met Leu Asp Gly Thr Ile Thr Asp Val Ile
      225          230          235          240

Glu Ala Gln Ser Leu Ser Leu Gln Pro Gln His Ile His Ile Tyr Ser
      245          250          255

Ala Ser Trp Gly Pro Glu Asp Asp Gly Arg Thr Val Asp Gly Pro Gly
      260          265          270

Ile Leu Thr Arg Glu Ala Phe Arg Arg Gly Val Thr Lys Gly Arg Gly
      275          280          285

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Gly Leu Gly Thr Leu Phe Ile Trp Ala Ser Gly Asn Gly Gly Leu His
 290 295 300
 Tyr Asp Asn Cys Asn Cys Asp Gly Tyr Thr Asn Ser Ile His Thr Leu
 305 310 315 320
 Ser Val Gly Ser Thr Thr Gln Gln Gly Arg Val Pro Trp Tyr Ser Glu
 325 330 335
 Ala Cys Ala Ser Thr Leu Thr Thr Thr Tyr Ser Ser Gly Val Ala Thr
 340 345 350
 Asp Pro Gln Ile Val Thr Thr Asp Leu His His Gly Cys Thr Asp Gln
 355 360 365
 His Thr Gly Thr Ser Ala Ser Ala Pro Leu Ala Ala Gly Met Ile Ala
 370 375 380
 Leu Ala Leu Glu Ala Asn Pro Phe Leu Thr Trp Arg Asp Met Gln His
 385 390 395 400
 Leu Val Val Arg Ala Ser Lys Pro Ala His Leu Gln Ala Glu Asp Trp
 405 410 415
 Arg Thr Asn Gly Val Gly Arg Gln Val Ser His His Tyr Gly Tyr Gly
 420 425 430
 Leu Leu Asp Ala Gly Leu Leu Val Asp Thr Ala Arg Thr Trp Leu Pro
 435 440 445
 Thr Gln Pro Gln Arg Lys Cys Ala Val Arg Val Gln Ser Arg Pro Thr
 450 455 460
 Pro Ile Leu Pro Leu Ile Tyr Ile Arg Glu Asn Val Ser Ala Cys Ala
 465 470 475 480
 Gly Leu His Asn Ser Ile Arg Ser Leu Glu His Val Gln Ala Gln Leu
 485 490 495
 Thr Leu Ser Tyr Ser Arg Arg Gly Asp Leu Glu Ile Ser Leu Thr Ser
 500 505 510
 Pro Met Gly Thr Arg Ser Thr Leu Val Ala Ile Arg Pro Leu Asp Val
 515 520 525
 Ser Thr Glu Gly Tyr Asn Asn Trp Val Phe Met Ser Thr His Phe Trp
 530 535 540
 Asp Glu Asn Pro Gln Gly Val Trp Thr Leu Gly Leu Glu Asn Lys Gly
 545 550 555 560
 Tyr Tyr Phe Asn Thr Gly Thr Leu Tyr Arg Tyr Thr Leu Leu Leu Tyr
 565 570 575
 Gly Thr Ala Glu Asp Met Thr Ala Arg Pro Thr Gly Pro Gln Val Thr
 580 585 590

Ser Ser Ala Cys Val Gln Arg Asp Thr Glu Gly Leu Cys Gln Ala Cys
 595 600 605
 Asp Gly Pro Ala Tyr Ile Leu Gly Gln Leu Cys Leu Ala Tyr Cys Pro
 610 615 620
 Pro Arg Phe Phe Asn His Thr Arg Leu Val Thr Ala Gly Pro Gly His
 625 630 635 640
 Thr Ala Ala Pro Ala Leu Arg Val Cys Ser Ser Cys His Ala Ser Cys
 645 650 655
 Tyr Thr Cys Arg Gly Gly Ser Pro Arg Asp Cys Thr Ser Cys Pro Pro
 660 665 670
 Ser Ser Thr Leu Asp Gln Gln Gln Gly Ser Cys Met Gly Pro Thr Thr
 675 680 685
 Pro Asp Ser Arg Pro Arg Leu Arg Ala Ala Ala Cys Pro His His Arg
 690 695 700
 Cys Pro Ala Ser Ala Met Val Leu Ser Leu Leu Ala Val Thr Leu Gly
 705 710 715 720
 Gly Pro Val Leu Cys Gly Met Ser Met Asp Leu Pro Leu Tyr Ala Trp
 725 730 735
 Leu Ser Arg Ala Arg Ala Thr Pro Thr Lys Pro Gln Val Trp Leu Pro
 740 745 750
 Ala Gly Thr
 755

<210> 83
 <211> 391
 <212> PRT
 <213> Homo sapiens

<400> 83
 Gly Pro Gly Arg Gln Gly Gly Cys Ala Gly Arg Arg Ser Thr Ala Leu
 1 5 10 15
 Pro Leu Arg Ala Pro Leu Arg Ala Arg Arg Pro Gly Pro Arg Ser Glu
 20 25 30
 Arg Met Gly Ala Ala Thr Cys Arg Gly Ser Arg Ile Pro Ser Gly Pro
 35 40 45
 Pro Val Gln Gly Glu Arg Ser Ala Pro Arg Phe Gly Val Thr Ser Leu
 50 55 60
 Ser Leu Trp Pro Ala Asp Phe Lys Asp Asn Trp Arg Ile Ala Gly Ser
 65 70 75 80
 Arg Gln Glu Val Ala Leu Ala Gly Glu Pro Ala Asp Gln Gln Gln Thr
 85 90 95

His Leu Arg Arg Leu Pro Tyr Arg Gln Thr Leu Gly Tyr Lys Glu Asp
 100 105 110
 Thr Thr Asn Pro Val Cys Gly Glu Pro Trp Trp Ser Glu Asp Leu Glu
 115 120 125
 Met Thr Arg His Trp Pro Trp Glu Val Ser Leu Arg Met Glu Asn Glu
 130 135 140
 His Val Cys Gly Gly Ala Leu Ile Asp Pro Ser Trp Val Val Thr Ala
 145 150 155 160
 Ala His Cys Ser Gln Gly Thr Lys Glu Tyr Ser Val Val Leu Gly Thr
 165 170 175
 Ser Lys Leu Gln Pro Met Asn Phe Ser Arg Ala Leu Trp Val Pro Val
 180 185 190
 Arg Asp Ile Ile Met His Pro Lys Tyr Trp Gly Arg Ala Phe Ile Met
 195 200 205
 Gly Asp Val Ala Leu Val His Leu Gln Thr Pro Val Thr Phe Ser Glu
 210 215 220
 Tyr Val Gln Pro Ile Cys Leu Pro Glu Pro Asn Phe Asn Leu Lys Val
 225 230 235 240
 Gly Thr Gln Cys Trp Val Thr Gly Trp Ser Gln Val Lys Gln Arg Phe
 245 250 255
 Ser Gly Ser Thr Ala Asn Ser Met Leu Thr Pro Glu Leu Gln Glu Ala
 260 265 270
 Glu Val Phe Ile Met Asp Asn Lys Arg Cys Asp Arg His Tyr Lys Lys
 275 280 285
 Ser Phe Phe Pro Pro Val Val Pro Leu Val Leu Gly Asp Met Ile Cys
 290 295 300
 Ala Thr Asn Tyr Gly Glu Asn Leu Cys Tyr Gly Asp Ser Gly Gly Pro
 305 310 315 320
 Leu Ala Cys Glu Val Glu Gly Arg Trp Ile Leu Ala Gly Val Leu Ser
 325 330 335
 Trp Glu Lys Ala Cys Val Lys Ala Gln Asn Pro Gly Val Tyr Thr Arg
 340 345 350
 Ile Thr Lys Tyr Thr Lys Trp Ile Lys Lys Gln Met Ser Asn Gly Ala
 355 360 365
 Phe Ser Gly Pro Cys Ala Ser Ala Cys Leu Leu Phe Leu Cys Trp Pro
 370 375 380
 Leu Gln Pro Gln Met Gly Ser
 385 390

<210> 84
 <211> 227
 <212> PRT
 <213> Homo sapiens

<400> 84
 Ile Leu Thr Pro Val Cys Gly Arg Thr Pro Leu Arg Ile Val Gly Gly
 1 5 10 15
 Val Asp Ala Glu Glu Gly Arg Trp Pro Trp Gln Val Ser Val Arg Thr
 20 25 30
 Lys Gly Arg His Ile Cys Gly Gly Thr Leu Val Thr Ala Thr Trp Val
 35 40 45
 Leu Thr Ala Gly His Cys Ile Ser Ser Arg Phe His Tyr Ser Val Lys
 50 55 60
 Met Gly Asp Arg Ser Val Tyr Asn Glu Asn Thr Ser Val Val Val Ser
 65 70 75 80
 Val Gln Arg Ala Phe Val His Pro Lys Phe Ser Thr Val Thr Thr Ile
 85 90 95
 Arg Asn Asp Leu Ala Leu Leu Gln Leu Gln His Pro Val Asn Phe Thr
 100 105 110
 Ser Asn Ile Gln Pro Ile Cys Ile Pro Gln Glu Asn Phe Gln Val Glu
 115 120 125
 Gly Arg Thr Arg Cys Trp Val Thr Gly Trp Gly Lys Thr Pro Glu Arg
 130 135 140
 Gly Glu Lys Leu Ala Ser Glu Ile Leu Gln Asp Val Asp Gln Tyr Ile
 145 150 155 160
 Met Cys Tyr Glu Glu Cys Asn Lys Ile Ile Gln Lys Ala Leu Ser Ser
 165 170 175
 Thr Lys Asp Val Ile Ile Lys Gly Met Val Cys Gly Tyr Lys Glu Gln
 180 185 190
 Gly Lys Asp Ser Cys Gln Gly Asp Ser Gly Gly Arg Leu Ala Cys Glu
 195 200 205
 Tyr Asn Asp Thr Trp Val Gln Val Gly Ile Val Ser Trp Gly Ile Gly
 210 215 220
 Cys Gly Arg
 225

<210> 85
 <211> 296
 <212> PRT
 <213> Homo sapiens

<400> 85

Met Gly Ala Arg Gly Ala Leu Leu Leu Ala Leu Leu Leu Ala Arg Ala
 1 5 10 15

Gly Leu Gly Lys Pro Glu Ala Cys Gly His Arg Glu Ile His Ala Leu
 20 25 30

Val Ala Gly Gly Val Glu Ser Ala Arg Gly Arg Trp Pro Trp Gln Ala
 35 40 45

Ser Leu Arg Leu Arg Arg Arg His Arg Cys Gly Gly Ser Leu Leu Ser
 50 55 60

Arg Arg Trp Val Leu Ser Ala Ala His Cys Phe Gln Lys His Tyr Tyr
 65 70 75 80

Pro Ser Glu Trp Thr Val Gln Leu Gly Glu Leu Thr Ser Arg Pro Thr
 85 90 95

Pro Trp Asn Leu Arg Ala Tyr Ser Ser Arg Tyr Lys Val Gln Asp Ile
 100 105 110

Ile Val Asn Pro Asp Ala Leu Gly Val Leu Arg Asn Asp Ile Ala Leu
 115 120 125

Leu Arg Leu Ala Ser Ser Val Thr Tyr Asn Ala Tyr Ile Gln Pro Ile
 130 135 140

Cys Ile Glu Ser Ser Thr Phe Asn Phe Val His Arg Pro Asp Cys Trp
 145 150 155 160

Val Thr Gly Trp Gly Leu Ile Ser Pro Ser Gly Thr Pro Leu Pro Pro
 165 170 175

Pro Tyr Asn Leu Arg Glu Ala Gln Val Thr Ile Leu Asn Asn Thr Arg
 180 185 190

Cys Asn Tyr Leu Phe Glu Gln Pro Ser Ser Arg Ser Met Ile Trp Asp
 195 200 205

Ser Met Phe Cys Ala Gly Ala Glu Asp Gly Ser Val Asp Thr Cys Lys
 210 215 220

Gly Asp Ser Gly Gly Pro Leu Val Cys Asp Lys Asp Gly Leu Trp Tyr
 225 230 235 240

Gln Val Gly Ile Val Ser Trp Gly Met Asp Cys Gly Gln Pro Asn Arg
 245 250 255

Pro Gly Val Tyr Thr Asn Ile Ser Val Tyr Phe His Trp Ile Arg Arg
 260 265 270

Val Met Ser His Ser Thr Pro Arg Pro Asn Pro Ser Gln Leu Leu Leu
 275 280 285

Leu Leu Ala Leu Leu Trp Ala Pro
 290 295

<210> 86
 <211> 628
 <212> PRT
 <213> Homo sapiens

<400> 86

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Met Gly Ser Thr Trp Gly Ser Pro Gly Trp Val Arg Leu Ala Leu Cys
 1           5           10           15

Leu Thr Gly Leu Val Leu Ser Leu Tyr Ala Leu His Val Lys Ala Ala
      20           25           30

Arg Ala Arg Asp Arg Asp Tyr Arg Ala Leu Cys Asp Val Gly Thr Ala
      35           40           45

Ile Ser Cys Ser Arg Val Phe Ser Ser Arg Trp Gly Arg Gly Phe Gly
      50           55           60

Leu Val Glu His Val Leu Gly Gln Asp Ser Ile Leu Asn Gln Ser Asn
      65           70           75           80

Ser Ile Phe Gly Cys Ile Phe Tyr Thr Leu Gln Leu Leu Leu Gly Leu
      85           90           95

Gln Ala Ala Gln Arg Ala Cys Gly Gln Arg Gly Pro Gly Pro Pro Lys
      100           105           110

Pro Gln Glu Gly Asn Thr Val Pro Gly Glu Trp Pro Trp Gln Ala Ser
      115           120           125

Val Arg Arg Gln Gly Ala His Ile Cys Ser Gly Ser Leu Val Ala Asp
      130           135           140

Thr Trp Val Leu Thr Ala Ala His Cys Phe Glu Lys Ala Ala Ala Thr
      145           150           155           160

Glu Leu Asn Ser Trp Ser Val Val Leu Gly Ser Leu Gln Arg Glu Gly
      165           170           175

Leu Ser Pro Gly Ala Glu Glu Val Gly Val Ala Ala Leu Gln Leu Pro
      180           185           190

Arg Ala Tyr Asn His Tyr Ser Gln Gly Ser Asp Leu Ala Leu Leu Gln
      195           200           205

Leu Ala His Pro Thr Thr His Thr Pro Leu Cys Leu Pro Gln Pro Ala
      210           215           220

His Arg Phe Pro Phe Gly Ala Ser Cys Trp Ala Thr Gly Trp Asp Gln
      225           230           235           240

Asp Thr Ser Asp Ala Pro Gly Thr Leu Arg Asn Leu Arg Leu Arg Leu
      245           250           255

Ile Ser Arg Pro Thr Cys Asn Cys Ile Tyr Asn Gln Leu His Gln Arg
      260           265           270

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His Leu Ser Asn Pro Ala Arg Pro Gly Met Leu Cys Gly Gly Pro Gln
 275 280 285
 Pro Gly Val Gln Gly Pro Cys Gln Gly Asp Ser Gly Gly Pro Val Leu
 290 295 300
 Cys Leu Glu Pro Asp Gly His Trp Val Gln Ala Gly Ile Ile Ser Phe
 305 310 315 320
 Ala Ser Ser Cys Ala Gln Glu Asp Ala Pro Val Leu Leu Thr Asn Thr
 325 330 335
 Ala Ala His Ser Ser Trp Leu Gln Ala Arg Val Gln Gly Ala Ala Phe
 340 345 350
 Leu Ala Gln Ser Pro Glu Thr Pro Glu Met Ser Asp Glu Asp Ser Cys
 355 360 365
 Val Ala Cys Gly Ser Leu Arg Thr Ala Gly Pro Gln Ala Gly Ala Pro
 370 375 380
 Ser Pro Trp Pro Trp Glu Ala Arg Leu Met His Gln Gly Gln Leu Ala
 385 390 395 400
 Cys Gly Gly Ala Leu Val Ser Glu Glu Ala Val Leu Thr Ala Ala His
 405 410 415
 Cys Phe Ile Gly Arg Gln Ala Pro Glu Glu Trp Ser Val Gly Leu Gly
 420 425 430
 Thr Arg Pro Glu Glu Trp Gly Leu Lys Gln Leu Ile Leu His Gly Ala
 435 440 445
 Tyr Thr His Pro Glu Gly Gly Tyr Asp Met Ala Leu Leu Leu Leu Ala
 450 455 460
 Gln Pro Val Thr Leu Gly Ala Ser Leu Arg Pro Leu Cys Leu Pro Tyr
 465 470 475 480
 Pro Asp His His Leu Pro Asp Gly Glu Arg Gly Trp Val Leu Gly Arg
 485 490 495
 Ala Arg Pro Gly Ala Gly Ile Ser Ser Leu Gln Thr Val Pro Val Thr
 500 505 510
 Leu Leu Gly Pro Arg Ala Cys Ser Arg Leu His Ala Ala Pro Gly Gly
 515 520 525
 Asp Gly Ser Pro Ile Leu Pro Gly Met Val Cys Thr Ser Ala Val Gly
 530 535 540
 Glu Leu Pro Ser Cys Glu Gly Leu Ser Gly Ala Pro Leu Val His Glu
 545 550 555 560
 Val Arg Gly Thr Trp Phe Leu Ala Gly Leu His Ser Phe Gly Asp Ala
 565 570 575

Cys Gln Gly Pro Ala Arg Pro Ala Val Phe Thr Ala Leu Pro Ala Tyr
 580 585 590

Glu Asp Trp Val Ser Ser Leu Asp Trp Gln Val Tyr Phe Ala Glu Glu
 595 600 605

Pro Glu Pro Glu Ala Glu Pro Gly Ser Cys Leu Ala Asn Ile Ser Gln
 610 615 620

Pro Thr Ser Cys
 625

<210> 87

<211> 276

<212> PRT

<213> Homo sapiens

<400> 87

Met Arg Ala Pro His Leu His Leu Ser Ala Ala Ser Gly Ala Arg Ala
 1 5 10 15

Leu Ala Lys Leu Leu Pro Leu Leu Met Ala Gln Leu Trp Ala Ala Glu
 20 25 30

Ala Ala Leu Leu Pro Gln Asn Asp Thr Arg Leu Asp Pro Glu Ala Tyr
 35 40 45

Gly Ala Pro Cys Ala Arg Gly Ser Gln Pro Trp Gln Val Ser Leu Phe
 50 55 60

Asn Gly Leu Ser Phe His Cys Ala Gly Val Leu Val Asp Gln Ser Trp
 65 70 75 80

Val Leu Thr Ala Ala His Cys Gly Asn Lys Pro Leu Trp Ala Arg Val
 85 90 95

Gly Asp Asp His Leu Leu Leu Leu Gln Gly Glu Gln Leu Arg Arg Thr
 100 105 110

Thr Arg Ser Val Val His Pro Lys Tyr His Gln Gly Ser Gly Pro Ile
 115 120 125

Leu Pro Arg Arg Thr Asp Glu His Asp Leu Met Leu Leu Lys Leu Ala
 130 135 140

Arg Pro Val Val Pro Gly Pro Arg Val Arg Ala Leu Gln Leu Pro Tyr
 145 150 155 160

Arg Cys Ala Gln Pro Gly Asp Gln Cys Gln Val Ala Gly Trp Gly Thr
 165 170 175

Thr Ala Ala Arg Arg Val Lys Tyr Asn Lys Gly Leu Thr Cys Ser Ser
 180 185 190

Ile Thr Ile Leu Ser Pro Lys Glu Cys Glu Val Phe Tyr Pro Gly Val
 195 200 205

Val Thr Asn Asn Met Ile Cys Ala Gly Leu Asp Arg Gly Gln Asp Pro
 210 215 220

Cys Gln Ser Asp Ser Gly Gly Pro Leu Val Cys Asp Glu Thr Leu Gln
 225 230 235 240

Gly Ile Leu Ser Trp Gly Val Tyr Pro Cys Gly Ser Ala Gln His Pro
 245 250 255

Ala Val Tyr Thr Gln Ile Cys Lys Tyr Met Ser Trp Ile Asn Lys Val
 260 265 270

Ile Arg Ser Asn
 275

<210> 88
 <211> 285
 <212> PRT
 <213> Homo sapiens

<400> 88
 Asn Val Gln Cys Gly His Arg Pro Ala Phe Pro Asn Ser Ser Trp Leu
 1 5 10 15

Pro Phe His Glu Arg Leu Gln Val Gln Asn Gly Glu Cys Pro Trp Gln
 20 25 30

Val Ser Ile Gln Met Ser Arg Lys His Leu Cys Gly Gly Ser Ile Leu
 35 40 45

His Trp Trp Trp Val Leu Thr Ala Ala His Cys Phe Arg Arg Thr Leu
 50 55 60

Leu Asp Met Ala Val Val Asn Val Thr Val Val Met Gly Thr Arg Thr
 65 70 75 80

Phe Ser Asn Ile His Ser Glu Arg Lys Gln Val Gln Lys Val Ile Ile
 85 90 95

His Lys Tyr Tyr Lys Pro Pro Gln Leu Asp Ser Asp Leu Ser Leu Leu
 100 105 110

Leu Leu Ala Thr Pro Val Gln Phe Ser Asn Phe Lys Met Pro Val Cys
 115 120 125

Leu Gln Glu Glu Glu Arg Thr Trp Asp Trp Cys Trp Met Ala Gln Trp
 130 135 140

Val Thr Thr Asn Gly Tyr Asp Gln Tyr Asp Asp Leu Asn Met His Leu
 145 150 155 160

Glu Lys Leu Arg Val Val Gln Ile Ser Arg Lys Glu Cys Ala Lys Arg
 165 170 175

Val Asn Gln Leu Ser Arg Asn Met Ile Cys Ala Trp Asn Glu Pro Gly
 180 185 190

Thr Asn Gly Gln Gly Pro Gly Glu Val Gly Gly Pro Leu Val Cys Gln
 195 200 205
 Lys Lys Asn Lys Ser Thr Trp Tyr Gln Leu Gly Ile Ile Ser Trp Gly
 210 215 220
 Val Gly Cys Gly Gln Lys Asn Met Pro Gly Val Tyr Thr Glu Leu Ser
 225 230 235 240
 Asn Tyr Leu Leu Trp Ile Glu Arg Lys Thr Val Leu Ala Gly Lys Pro
 245 250 255
 Tyr Lys Tyr Glu Pro Asp Ser Val Tyr Ala Leu Leu Leu Ser Pro Trp
 260 265 270
 Ala Ile Leu Leu Leu Tyr Phe Val Met Leu Leu Leu Ser
 275 280 285

<210> 89
 <211> 413
 <212> PRT
 <213> Homo sapiens

<400> 89
 Met Glu Asn Met Leu Leu Trp Leu Ile Phe Phe Thr Pro Gly Trp Thr
 1 5 10 15
 Leu Ile Asp Gly Ser Glu Met Glu Trp Asp Phe Met Trp His Leu Arg
 20 25 30
 Lys Val Pro Arg Ile Val Ser Glu Arg Thr Phe His Leu Thr Ser Pro
 35 40 45
 Ala Phe Glu Ala Asp Ala Lys Met Met Val Asn Thr Val Cys Gly Ile
 50 55 60
 Glu Cys Gln Lys Glu Leu Pro Thr Pro Ser Leu Ser Glu Leu Glu Asp
 65 70 75 80
 Tyr Leu Ser Tyr Glu Thr Val Phe Glu Asn Gly Thr Arg Thr Leu Thr
 85 90 95
 Arg Val Lys Val Gln Asp Leu Val Leu Glu Pro Thr Gln Asn Ile Thr
 100 105 110
 Thr Lys Gly Val Ser Val Arg Arg Lys Arg Gln Val Tyr Gly Thr Asp
 115 120 125
 Ser Arg Phe Ser Ile Leu Asp Lys Arg Phe Leu Thr Asn Phe Pro Phe
 130 135 140
 Ser Thr Ala Val Lys Leu Ser Thr Gly Cys Ser Gly Ile Leu Ile Ser
 145 150 155 160
 Pro Gln His Val Leu Thr Ala Ala His Cys Val His Asp Gly Lys Asp
 165 170 175

Tyr Val Lys Gly Ser Lys Lys Leu Arg Val Gly Leu Leu Lys Met Arg
 180 185 190
 Asn Lys Ser Gly Gly Lys Lys Arg Arg Gly Ser Lys Arg Ser Arg Arg
 195 200 205
 Glu Ala Ser Gly Gly Asp Gln Arg Glu Gly Thr Arg Glu His Leu Pro
 210 215 220
 Glu Arg Ala Lys Gly Gly Arg Arg Arg Lys Lys Ser Gly Arg Gly Gln
 225 230 235 240
 Arg Ile Ala Glu Gly Arg Pro Ser Phe Gln Trp Thr Arg Val Lys Asn
 245 250 255
 Thr His Ile Pro Lys Gly Trp Ala Arg Gly Gly Met Gly Asp Ala Thr
 260 265 270
 Leu Asp Tyr Asp Tyr Ala Leu Leu Glu Leu Lys Arg Ala His Lys Lys
 275 280 285
 Lys Tyr Met Glu Leu Gly Ile Ser Pro Thr Ile Lys Lys Met Pro Gly
 290 295 300
 Gly Met Ile His Phe Ser Gly Phe Asp Asn Asp Arg Ala Asp Gln Leu
 305 310 315 320
 Val Tyr Arg Phe Cys Ser Val Ser Asp Glu Ser Asn Asp Leu Leu Tyr
 325 330 335
 Gln Tyr Cys Asp Ala Glu Ser Gly Ser Thr Gly Ser Gly Val Tyr Leu
 340 345 350
 Arg Leu Lys Asp Pro Asp Lys Lys Asn Trp Lys Arg Lys Ile Ile Ala
 355 360 365
 Val Tyr Ser Gly His Gln Trp Val Asp Val His Gly Val Gln Lys Asp
 370 375 380
 Tyr Asn Val Ala Val Arg Ile Thr Pro Leu Lys Tyr Ala Gln Ile Cys
 385 390 395 400
 Leu Trp Ile His Gly Asn Asp Ala Asn Cys Ala Tyr Gly
 405 410

<210> 90

<211> 320

<212> PRT

<213> Homo sapiens

<400> 90

Met Gly Asp Pro Glu Gly Ser Ala Glu Trp Gly Trp Gly Lys Gly Ile
 1 5 10 15

Pro Val Val Arg Arg Asn Leu Leu Thr Val Asp Gly Ile Ser Leu Cys
 20 25 30

Leu	Glu	Gly	Ser	Trp	Trp	Arg	Gln	Lys	Gly	Pro	Ala	Ser	Pro	Gly	Phe
35						40						45			
Ser	His	Ser	Leu	Pro	Arg	Leu	Gln	Pro	Asn	Pro	Gly	Pro	Ser	Ser	Thr
50						55				60					
Met	Trp	Leu	Leu	Leu	Thr	Leu	Ser	Phe	Leu	Leu	Ala	Ser	Thr	Ala	Ala
65				70						75				80	
Gln	Asp	Gly	Asp	Lys	Leu	Leu	Glu	Gly	Asp	Glu	Cys	Ala	Pro	His	Ser
				85				90						95	
Gln	Pro	Trp	Gln	Val	Ala	Leu	Tyr	Glu	Arg	Gly	Arg	Phe	Asn	Cys	Gly
		100						105				110			
Ala	Ser	Leu	Ile	Ser	Pro	His	Trp	Val	Leu	Ser	Ala	Ala	His	Cys	Gln
		115				120						125			
Ser	Arg	Phe	Met	Arg	Val	Arg	Leu	Gly	Glu	His	Asn	Leu	Arg	Lys	Arg
130						135				140					
Asp	Gly	Pro	Glu	Gln	Leu	Arg	Thr	Thr	Ser	Arg	Val	Ile	Pro	His	Pro
145				150						155				160	
Arg	Tyr	Glu	Ala	Arg	Ser	His	Arg	Asn	Asp	Ile	Met	Leu	Leu	Arg	Leu
				165				170				175			
Val	Gln	Pro	Ala	Arg	Leu	Asn	Pro	Gln	Val	Arg	Pro	Ala	Val	Leu	Pro
		180						185				190			
Thr	Arg	Cys	Pro	His	Pro	Gly	Glu	Ala	Cys	Val	Val	Ser	Gly	Trp	Gly
		195				200						205			
Leu	Val	Ser	His	Asn	Glu	Pro	Gly	Thr	Ala	Gly	Ser	Pro	Arg	Ser	Gln
210						215				220					
Val	Ser	Leu	Pro	Asp	Thr	Leu	His	Cys	Ala	Asn	Ile	Ser	Ile	Ile	Ser
225				230						235				240	
Asp	Thr	Ser	Cys	Asp	Lys	Ser	Tyr	Pro	Gly	Arg	Leu	Thr	Asn	Thr	Met
				245				250				255			
Val	Cys	Ala	Gly	Ala	Glu	Gly	Arg	Gly	Ala	Glu	Ser	Cys	Glu	Gly	Asp
		260						265				270			
Ser	Gly	Gly	Pro	Leu	Val	Cys	Gly	Gly	Ile	Leu	Gln	Gly	Ile	Val	Ser
		275				280				285					
Trp	Gly	Asp	Val	Pro	Cys	Asp	Asn	Thr	Thr	Lys	Pro	Gly	Val	Tyr	Thr
290						295				300					
Lys	Val	Cys	His	Tyr	Leu	Glu	Trp	Ile	Arg	Glu	Thr	Met	Lys	Arg	Asn
305				310						315				320	

<210> 91
 <211> 328
 <212> PRT
 <213> Homo sapiens

<400> 91

Met Gly Pro Ala Gly Cys Ala Phe Thr Leu Leu Leu Leu Gly Ile
 1 5 10 15

Ser Val Cys Gly Gln Pro Val Tyr Ser Ser Arg Val Val Gly Gly Gln
 20 25 30

Asp Ala Ala Ala Gly Arg Trp Pro Trp Gln Val Ser Leu His Phe Asp
 35 40 45

His Asn Phe Ile Cys Gly Gly Ser Leu Val Ser Glu Arg Leu Ile Leu
 50 55 60

Thr Ala Ala His Cys Ile Gln Pro Thr Trp Thr Thr Phe Ser Tyr Thr
 65 70 75 80

Val Trp Leu Gly Ser Ile Thr Val Gly Asp Ser Arg Lys Arg Val Lys
 85 90 95

Tyr Tyr Val Ser Lys Ile Val Ile His Pro Lys Tyr Gln Asp Thr Thr
 100 105 110

Ala Asp Val Ala Leu Leu Lys Leu Ser Ser Gln Val Thr Phe Thr Ser
 115 120 125

Ala Ile Leu Pro Ile Cys Leu Pro Ser Val Thr Lys Gln Leu Ala Ile
 130 135 140

Pro Pro Phe Cys Trp Val Thr Gly Trp Gly Lys Val Lys Glu Ser Ser
 145 150 155 160

Asp Arg Asp Tyr His Ser Ala Leu Gln Glu Ala Glu Val Pro Ile Ile
 165 170 175

Asp Arg Gln Ala Cys Glu Gln Leu Tyr Asn Pro Ile Gly Ile Phe Leu
 180 185 190

Pro Ala Leu Glu Pro Val Ile Lys Glu Asp Lys Ile Cys Ala Gly Asp
 195 200 205

Thr Gln Asn Met Lys Asp Ser Cys Lys Gly Asp Ser Gly Gly Pro Leu
 210 215 220

Ser Cys His Ile Asp Gly Val Trp Ile Gln Thr Gly Val Val Ser Trp
 225 230 235 240

Gly Leu Glu Cys Gly Lys Ser Leu Pro Gly Val Tyr Thr Asn Val Ile
 245 250 255

Tyr Tyr Gln Lys Trp Ile Asn Ala Thr Ile Ser Arg Ala Asn Asn Leu
 260 265 270

Asp Phe Ser Asp Phe Leu Phe Pro Ile Val Leu Leu Ser Leu Ala Leu
 275 280 285

Leu Arg Pro Ser Cys Ala Phe Gly Pro Asn Thr Ile His Arg Val Gly
 290 295 300

Thr Val Ala Glu Ala Val Ala Cys Ile Gln Gly Trp Glu Glu Asn Ala
 305 310 315 320

Trp Arg Phe Ser Pro Arg Gly Arg
 325

<210> 92

<211> 425

<212> PRT

<213> Homo sapiens

<400> 92

Met Met Tyr Ala Pro Val Glu Phe Ser Glu Ala Glu Phe Ser Arg Ala
 1 5 10 15

Glu Tyr Gln Arg Lys Gln Gln Phe Trp Asp Ser Val Arg Leu Ala Leu
 20 25 30

Phe Thr Leu Ala Ile Val Ala Ile Ile Gly Ile Ala Ile Gly Ile Val
 35 40 45

Thr His Phe Val Val Glu Asp Asp Lys Ser Phe Tyr Tyr Leu Ala Ser
 50 55 60

Phe Lys Val Thr Asn Ile Lys Tyr Lys Glu Asn Tyr Gly Ile Arg Ser
 65 70 75 80

Ser Arg Glu Phe Ile Glu Arg Ser His Gln Ile Glu Arg Met Met Ser
 85 90 95

Arg Ile Phe Arg His Ser Ser Val Gly Gly Arg Phe Ile Lys Ser His
 100 105 110

Val Ile Lys Leu Ser Pro Asp Glu Gln Gly Val Asp Ile Leu Ile Val
 115 120 125

Leu Ile Phe Arg Tyr Pro Ser Thr Asp Ser Ala Glu Gln Ile Lys Lys
 130 135 140

Lys Ile Glu Lys Ala Leu Tyr Gln Ser Leu Lys Thr Lys Gln Leu Ser
 145 150 155 160

Leu Thr Ile Asn Lys Pro Ser Phe Arg Leu Thr Arg Cys Gly Ile Arg
 165 170 175

Met Thr Ser Ser Asn Met Pro Leu Pro Ala Ser Ser Ser Thr Gln Arg
 180 185 190

Ile Val Gln Gly Arg Glu Thr Ala Met Glu Gly Glu Trp Pro Trp Gln
 195 200 205

Ala Ser Leu Gln Leu Ile Gly Ser Gly His Gln Cys Gly Ala Ser Leu
 210 215 220
 Ile Ser Asn Thr Trp Leu Leu Thr Ala Ala His Cys Phe Trp Lys Asn
 225 230 235 240
 Lys Asp Pro Thr Gln Trp Ile Ala Thr Phe Gly Ala Thr Ile Thr Pro
 245 250 255
 Pro Ala Val Lys Arg Asn Val Arg Lys Ile Ile Leu His Glu Asn Tyr
 260 265 270
 His Arg Glu Thr Asn Glu Asn Asp Ile Ala Leu Val Gln Leu Ser Thr
 275 280 285
 Gly Val Glu Phe Ser Asn Ile Val Gln Arg Val Cys Leu Pro Asp Ser
 290 295 300
 Ser Ile Lys Leu Pro Pro Lys Thr Ser Val Phe Val Thr Gly Phe Gly
 305 310 315 320
 Ser Ile Val Asp Asp Gly Pro Ile Gln Asn Thr Leu Arg Gln Ala Arg
 325 330 335
 Val Glu Thr Ile Ser Thr Asp Val Cys Asn Arg Lys Asp Val Tyr Asp
 340 345 350
 Gly Leu Ile Thr Pro Gly Met Leu Cys Ala Gly Phe Met Glu Gly Lys
 355 360 365
 Ile Asp Ala Cys Lys Gly Asp Ser Gly Gly Pro Leu Val Tyr Asp Asn
 370 375 380
 His Asp Ile Trp Tyr Ile Val Gly Ile Val Ser Trp Gly Gln Ser Cys
 385 390 395 400
 Ala Leu Pro Lys Lys Pro Gly Val Tyr Thr Arg Val Thr Lys Tyr Arg
 405 410 415
 Asp Trp Ile Ala Ser Lys Thr Gly Met
 420 425

<210> 93
 <211> 222
 <212> PRT
 <213> Homo sapiens

<400> 93
 Arg Ile Ala Glu Gly Leu Asp Ala Glu Glu Gly Glu Trp Pro Trp Gln
 1 5 10 15
 Ala Ser Leu Pro Gln Asn Asn Val Tyr Arg Arg Gly Ala Thr Trp Leu
 20 25 30
 Ser Asn Ser Trp Leu Ile Thr Ala Ala His Cys Phe Ile Arg Val His
 35 40 45

Asp Pro Lys Glu Trp Asn Val Ile Leu Ser Asn Pro Gln Thr Gln Ser
 50 55 60
 Asn Ile Lys Asn Val Ile Ile Gln Glu Asn Tyr His Tyr Pro Ala His
 65 70 75 80
 Asp Asn Asp Ile Ala Val Val His Leu Ser Ser Pro Val Leu Tyr Thr
 85 90 95
 Ser Asn Ile Gln Lys Ala Cys Leu Pro Asp Val Asn Tyr Ile Phe Leu
 100 105 110
 Tyr Asn Ser Glu Ala Val Val Thr Ala Trp Gly Ser Phe Lys Pro Leu
 115 120 125
 Arg Thr Thr Ser Asn Val Leu His Lys Gly Leu Val Lys Ile Ile Asp
 130 135 140
 Asn Arg Thr Cys Asn Asn Gly Glu Ala Asp Gly Arg Val Ile Thr Ser
 145 150 155 160
 Gly Met Leu Cys Ala Gly Phe Leu Glu Pro Arg Val Asp Ala Cys Gln
 165 170 175
 Gly Asp Ser Gly Gly Pro Leu Val Gly Thr Asp Ser Lys Gly Ile Leu
 180 185 190
 Ala Lys Gly Ser Leu Leu Val Leu Lys Ala Gly Val Asn Glu Arg Ala
 195 200 205
 Leu Pro Asn Lys Pro Ser Val Tyr Thr Gln Val Thr Tyr Tyr
 210 215 220

<210> 94
 <211> 948
 <212> PRT
 <213> Homo sapiens

<400> 94
 Met Val Ser Lys Gly Gly Val Ala Ala Glu Pro Glu Pro His Tyr Cys
 1 5 10 15
 Glu Asp Ser Glu Arg Gly Pro Asn Thr Leu Thr Gly Pro Gly Ser Leu
 20 25 30
 Pro Arg Gly Gly Gly Ile Glu Val Gly Met Glu Phe Pro Gly Cys Ser
 35 40 45
 Gly Glu Gly Cys Val Lys Pro His Glu Glu Ala Ala Arg Glu Gly Ala
 50 55 60
 Gly Arg Gly Lys Arg Ala Val Pro Gly Pro Lys Arg Arg Gln Gln Gly
 65 70 75 80
 Ser Ala Glu Gly Pro Ala Ala Gly Trp Thr Leu Glu Gln Glu Thr Arg
 85 90 95

Gly	Asp	Val	Leu	Glu	Asp	Lys	Asn	Glu	Arg	Ala	Asp	Glu	Glu	Ile	Leu	100	105	110	
Arg	Leu	Ala	Pro	Gly	Lys	Gly	Arg	Leu	Pro	Ile	Asp	Ser	Lys	His	Leu	115	120	125	
Lys	Pro	Val	Ile	Ser	Ser	Phe	Pro	Val	Arg	Ser	Gln	Glu	Leu	Gly	Glu	130	135	140	
Gly	Ala	Gly	Ala	Gly	Thr	Leu	Arg	Gly	Lys	Met	Ala	Glu	Phe	Asn	Trp	145	150	155	160
Ser	Met	Ala	Phe	Lys	Gly	Pro	Ala	Ala	Gly	His	Glu	Glu	Arg	Leu	Asn	165	170	175	
Ser	Val	Ser	Ser	Arg	Ala	Lys	Lys	Gly	Ile	Gly	Trp	Asp	Val	Ala	Ala	180	185	190	
Ala	Ser	Leu	Arg	Gly	Val	Asp	His	Phe	Ser	Asp	Leu	Pro	Pro	Pro	Leu	195	200	205	
Gln	Val	Arg	Glu	Glu	Leu	Glu	Ala	Cys	Ala	Phe	Arg	Val	Gln	Val	Gly	210	215	220	
Gln	Leu	Arg	Leu	Tyr	Glu	Asp	Asp	Gln	Arg	Thr	Lys	Val	Val	Glu	Ile	225	230	235	240
Val	Arg	His	Pro	Gln	Tyr	Asn	Glu	Ser	Leu	Ser	Ala	Gln	Gly	Gly	Ala	245	250	255	
Asp	Ile	Ala	Leu	Leu	Lys	Leu	Glu	Ala	Pro	Val	Pro	Leu	Ser	Glu	Leu	260	265	270	
Ile	His	Pro	Val	Ser	Leu	Pro	Ser	Ala	Ser	Leu	Asp	Val	Pro	Ser	Gly	275	280	285	
Lys	Thr	Cys	Trp	Val	Thr	Gly	Trp	Gly	Val	Ile	Gly	Arg	Gly	Glu	Leu	290	295	300	
Leu	Pro	Trp	Pro	Leu	Ser	Leu	Trp	Glu	Ala	Thr	Val	Lys	Val	Arg	Ser	305	310	315	320
Asn	Val	Leu	Cys	Asn	Gln	Thr	Cys	Arg	Arg	Arg	Phe	Pro	Ser	Asn	His	325	330	335	
Thr	Glu	Arg	Phe	Glu	Arg	Leu	Ile	Lys	Asp	Asp	Met	Leu	Cys	Ala	Gly	340	345	350	
Asp	Gly	Asn	His	Gly	Ser	Trp	Pro	Gly	Asp	Asn	Gly	Gly	Pro	Leu	Leu	355	360	365	
Cys	Arg	Arg	Asn	Cys	Thr	Trp	Val	Gln	Val	Glu	Val	Val	Ser	Trp	Gly	370	375	380	
Lys	Leu	Cys	Gly	Leu	Arg	Gly	Tyr	Pro	Gly	Met	Tyr	Thr	Arg	Val	Thr	385	390	395	400

Ser Tyr Val Ser Trp Ile Arg Gln Pro Cys Pro Ser Ala Gln Thr Pro
 405 410 415
 Ala Val Val Arg Arg Phe Val Leu Pro Pro Asn Pro Asp Val Glu Ala
 420 425 430
 Leu Thr Pro Ser Val Met Gly Ser Gly Ala Pro Leu Pro Pro Ala Pro
 435 440 445
 Asp Leu Gln Glu Ala Glu Val Pro Ile Met Arg Thr Arg Ala Cys Glu
 450 455 460
 Arg Met Tyr His Lys Gly Pro Thr Ala His Gly Gln Val Thr Ile Ile
 465 470 475 480
 Lys Ala Ala Met Pro Cys Ala Gly Arg Lys Gly Gln Gly Ser Cys Gln
 485 490 495
 Ala Ala Leu Arg Thr Glu Asp Leu Thr Pro Thr Thr Pro Asn Thr Glu
 500 505 510
 Val Ser Pro Arg Ala Asp Pro Arg Leu Ser Gln Pro Glu Asp Ile Trp
 515 520 525
 Pro Glu Trp Ala Trp Pro Val Val Val Gly Thr Thr Met Leu Leu Leu
 530 535 540
 Leu Leu Phe Leu Ala Val Ser Ser Leu Gly Ser Cys Ser Thr Gly Ser
 545 550 555 560
 Pro Ala Pro Val Pro Glu Asn Asp Leu Val Gly Ile Val Gly Gly His
 565 570 575
 Asn Thr Pro Gly Glu Val Val Val Ala Val Gly Ala Asp Arg Arg Ser
 580 585 590
 Leu His Phe Pro Glu Gly His Arg Pro Val His Leu Pro Asp Ser His
 595 600 605
 Gln Gly Cys Val Ser Val Arg Gly Pro Gly Ala Ala Glu Cys Gln Pro
 610 615 620
 Asp Arg Arg Pro Pro Asn Tyr Ser Val Phe Phe Leu Gly Ala Asp Ile
 625 630 635 640
 Ala Leu Leu Lys Leu Ala Thr Ser Ser Leu Glu Phe Thr Asp Ser Asp
 645 650 655
 Asn Cys Trp Asn Thr Gly Trp Gly Met Val Gly Leu Leu Asp Met Leu
 660 665 670
 Pro Pro Pro Tyr Arg Pro Gln Gln Val Lys Val Leu Thr Leu Ser Asn
 675 680 685
 Ala Asp Cys Glu Arg Gln Thr Tyr Asp Ala Phe Pro Gly Ala Gly Asp
 690 695 700

Arg Lys Phe Ile Gln Asp Asp Met Ile Cys Ala Gly Arg Thr Gly Arg
705 710 715 720

Arg Thr Trp Lys Gly Asp Ser Gly Gly Pro Leu Val Cys Lys Lys Lys
725 730 735

Gly Thr Trp Leu Gln Ala Gly Val Val Ser Trp Gly Phe Tyr Ser Asp
740 745 750

Arg Pro Ser Ile Gly Val Tyr Thr Arg Pro Glu Thr Ser Trp Gln Gly
755 760 765

Ala Asn His Ala Asp Ala Gln Arg Pro Ala Gly Arg Val Pro Thr Met
770 775 780

Gln Arg Pro Arg Asp Met Gly Gln Gly Gln Glu Trp Val Cys Arg Pro
785 790 795 800

Phe Thr His Val Thr Cys Tyr Pro Thr Ala Ile Pro Arg Pro Phe Thr
805 810 815

His Val Thr Cys Tyr Leu Met Ala Val Pro Ser Thr Leu Thr His Val
820 825 830

Thr Cys Tyr Pro Thr Ala Val Pro Arg Pro Phe Thr His Val Thr Cys
835 840 845

Tyr Leu Met Ala Val Pro Ser Thr Leu Thr His Ile Thr Cys Tyr Met
850 855 860

Met Ala Val Pro Arg Pro Phe Thr His Ile Thr Cys Tyr Pro Met Ala
865 870 875 880

Val Pro Ser Thr Leu Thr His Val Thr Cys His Pro Thr Ala Ile Pro
885 890 895

Arg Pro Phe Thr His Ile Thr Cys Tyr Thr Met Ala Ile Pro Arg Pro
900 905 910

Ser Thr Thr Pro Pro Ala Thr Arg Arg Pro Ser Pro Ala Pro Ser Pro
915 920 925

Thr Ser Pro Ala Thr Arg Trp Pro Ser Pro Gly Pro Ser Pro Met Ser
930 935 940

Pro Ala Thr Arg
945

<210> 95

<211> 352

<212> PRT

<213> Homo sapiens

<400> 95

Met Leu Leu Phe Ser Val Leu Leu Leu Leu Ser Leu Val Thr Arg Thr
1 5 10 15

Gln Leu Gly Pro Arg Thr Pro Leu Pro Glu Ala Gly Val Ala Ile Leu
 20 25 30

Gly Arg Ala Arg Gly Ala His Arg Pro Gln Pro Pro His Pro Pro Ser
 35 40 45

Pro Val Ser Glu Cys Gly Asp Arg Ser Ile Phe Glu Gly Arg Thr Arg
 50 55 60

Tyr Ser Arg Ile Thr Gly Gly Met Glu Ala Glu Val Gly Glu Phe Pro
 65 70 75 80

Trp Gln Val Ser Ile Gln Val Arg Ser Glu Pro Phe Cys Gly Gly Ser
 85 90 95

Ile Leu Asn Lys Trp Trp Ile Leu Thr Ala Ala His Cys Leu Tyr Ser
 100 105 110

Glu Glu Leu Phe Pro Glu Glu Leu Ser Val Val Leu Gly Thr Asn Asp
 115 120 125

Leu Thr Ser Pro Ser Met Glu Ile Lys Glu Val Ala Ser Ile Ile Leu
 130 135 140

His Lys Asp Phe Lys Arg Ala Asn Met Asp Asn Asp Ile Ala Leu Leu
 145 150 155 160

Leu Leu Ala Ser Pro Ile Lys Leu Asp Asp Leu Lys Val Pro Ile Cys
 165 170 175

Leu Pro Thr Gln Pro Gly Pro Ala Thr Trp Arg Glu Cys Trp Val Ala
 180 185 190

Gly Trp Gly Gln Thr Asn Ala Ala Asp Lys Asn Ser Val Lys Thr Asp
 195 200 205

Leu Met Lys Ala Pro Met Val Ile Met Asp Trp Glu Glu Cys Ser Lys
 210 215 220

Met Phe Pro Lys Leu Thr Lys Asn Met Leu Cys Ala Gly Tyr Lys Asn
 225 230 235 240

Glu Ser Tyr Asp Ala Cys Lys Gly Asp Ser Gly Gly Pro Leu Val Cys
 245 250 255

Thr Pro Glu Pro Gly Glu Lys Trp Tyr Gln Val Gly Ile Ile Ser Trp
 260 265 270

Gly Lys Ser Cys Gly Glu Lys Asn Thr Pro Gly Ile Tyr Thr Ser Leu
 275 280 285

Val Asn Tyr Asn Leu Trp Ile Glu Lys Val Thr Gln Leu Glu Gly Arg
 290 295 300

Pro Phe Asn Ala Glu Lys Arg Arg Thr Ser Val Lys Gln Lys Pro Met
 305 310 315 320

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<400> 96
Met Ala Ser Leu Trp Leu Leu Ser Cys Phe Ser Leu Val Gly Ala Ala
  1           5           10           15

Phe Gly Cys Gly Val Pro Ala Ile His Pro Val Leu Ser Gly Leu Ser
      20           25           30

Arg Ile Val Asn Gly Glu Asp Ala Val Pro Gly Ser Trp Pro Trp Gln
      35           40           45

Val Ser Leu Gln Asp Lys Thr Gly Phe His Phe Cys Gly Gly Ser Leu
      50           55           60

Ile Ser Glu Asp Trp Val Val Thr Ala Ala His Cys Gly Val Arg Thr
  65           70           75           80

Ser Asp Val Val Val Ala Gly Glu Phe Asp Gln Gly Ser Asp Glu Glu
      85           90           95

Asn Ile Gln Val Leu Lys Ile Ala Lys Val Phe Lys Asn Pro Lys Phe
      100          105          110

Ser Ile Leu Thr Val Asn Asn Asp Ile Thr Leu Leu Lys Leu Ala Thr
      115          120          125

Pro Ala Arg Phe Ser Gln Thr Val Ser Ala Val Cys Leu Pro Ser Ala
      130          135          140

Asp Asp Asp Phe Pro Ala Gly Thr Leu Cys Ala Thr Thr Gly Trp Gly
  145          150          155          160

Lys Thr Lys Tyr Asn Ala Asn Lys Thr Pro Asp Lys Leu Gln Gln Ala
      165          170          175

Ala Leu Pro Leu Leu Ser Asn Ala Glu Cys Lys Lys Ser Trp Gly Arg
      180          185          190

Arg Ile Thr Asp Val Met Ile Cys Ala Gly Ala Ser Gly Val Ser Ser
      195          200          205

Cys Met Gly Asp Ser Gly Gly Pro Leu Val Cys Gln Lys Asp Gly Ala
  210          215          220

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Trp Thr Leu Val Gly Ile Val Ser Trp Gly Ser Arg Thr Cys Ser Thr
 225 230 235 240

Thr Thr Pro Ala Val Tyr Ala Arg Val Thr Lys Leu Ile Pro Trp Val
 245 250 255

Gln Lys Ile Leu Ala Ala Asn
 260

<210> 97

<211> 1128

<212> PRT

<213> Homo sapiens

<400> 97

Met Glu Pro Thr Val Ala Asp Val His Leu Val Pro Arg Thr Thr Lys
 1 5 10 15

Glu Val Pro Ala Leu Asp Ala Ala Cys Cys Arg Ala Ala Ser Ile Gly
 20 25 30

Val Val Ala Thr Ser Leu Val Val Leu Thr Leu Gly Val Leu Leu Gly
 35 40 45

Gly Met Asn Asn Ser Arg His Ala Ala Leu Arg Ala Ala Thr Leu Pro
 50 55 60

Gly Lys Val Tyr Ser Val Thr Pro Glu Ala Ser Lys Thr Thr Asn Pro
 65 70 75 80

Pro Glu Gly Arg Asn Ser Glu His Ile Arg Thr Ser Ala Arg Thr Asn
 85 90 95

Ser Gly His Thr Ile Phe Lys Lys Cys Asn Thr Gln Pro Phe Leu Ser
 100 105 110

Thr Gln Gly Phe His Val Asp His Thr Ala Glu Leu Arg Gly Ile Arg
 115 120 125

Trp Thr Ser Ser Leu Arg Arg Glu Thr Ser Asp Tyr His Arg Thr Leu
 130 135 140

Thr Pro Thr Leu Glu Ala Leu Leu His Phe Leu Leu Arg Pro Leu Gln
 145 150 155 160

Thr Leu Ser Leu Gly Leu Glu Glu Glu Leu Leu Gln Arg Gly Ile Arg
 165 170 175

Ala Arg Leu Arg Glu His Gly Ile Ser Leu Ala Ala Tyr Gly Thr Ile
 180 185 190

Val Ser Ala Glu Leu Thr Gly Arg His Lys Gly Pro Leu Ala Glu Arg
 195 200 205

Asp Phe Lys Ser Gly Arg Cys Pro Gly Asn Ser Phe Ser Cys Gly Asn
 210 215 220

Ser Gln Cys Val Thr Lys Val Asn Pro Glu Cys Asp Asp Gln Glu Asp
 225 230 235 240
 Cys Ser Asp Gly Ser Asp Glu Ala His Cys Glu Cys Gly Leu Gln Pro
 245 250 255
 Ala Trp Arg Met Ala Gly Arg Ile Val Gly Gly Met Glu Ala Ser Pro
 260 265 270
 Gly Glu Phe Pro Trp Gln Ala Ser Leu Arg Glu Asn Lys Glu His Phe
 275 280 285
 Cys Gly Ala Ala Ile Ile Asn Ala Arg Trp Leu Val Ser Ala Ala His
 290 295 300
 Cys Phe Asn Glu Phe Gln Asp Pro Thr Lys Trp Val Ala Tyr Val Gly
 305 310 315 320
 Ala Thr Tyr Leu Ser Gly Ser Glu Ala Ser Thr Val Arg Ala Gln Val
 325 330 335
 Val Gln Ile Val Lys His Pro Leu Tyr Asn Ala Asp Thr Ala Asp Phe
 340 345 350
 Asp Val Ala Val Leu Glu Leu Thr Ser Pro Leu Pro Phe Gly Arg His
 355 360 365
 Ile Gln Pro Val Cys Leu Pro Ala Ala Thr His Ile Phe Pro Pro Ser
 370 375 380
 Lys Lys Cys Leu Ile Ser Gly Trp Gly Tyr Leu Lys Glu Asp Phe Arg
 385 390 395 400
 Lys His Leu Pro Arg Pro Ala Met Val Lys Pro Glu Val Leu Gln Lys
 405 410 415
 Ala Thr Val Glu Leu Leu Asp Gln Ala Leu Cys Ala Ser Leu Tyr Gly
 420 425 430
 His Ser Leu Thr Asp Arg Met Val Cys Ala Gly Tyr Leu Asp Gly Lys
 435 440 445
 Val Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Glu Glu
 450 455 460
 Pro Ser Gly Arg Phe Phe Leu Ala Gly Ile Val Ser Trp Gly Ile Gly
 465 470 475 480
 Cys Ala Glu Ala Arg Arg Pro Gly Val Tyr Ala Arg Val Thr Arg Leu
 485 490 495
 Arg Asp Trp Ile Leu Glu Ala Thr Thr Lys Ala Ser Met Pro Leu Ala
 500 505 510
 Pro Thr Met Ala Pro Ala Pro Ala Ala Pro Ser Thr Ala Trp Pro Thr
 515 520 525

Ser Pro Glu Ser Pro Val Val Ser Thr Pro Thr Lys Ser Met Gln Ala
 530 535 540
 Leu Ser Thr Val Pro Leu Asp Trp Val Thr Val Pro Lys Leu Gln Glu
 545 550 555 560
 Cys Gly Ala Arg Pro Ala Met Glu Lys Pro Thr Arg Val Val Gly Gly
 565 570 575
 Phe Gly Ala Ala Ser Gly Glu Val Pro Trp Gln Val Ser Leu Lys Glu
 580 585 590
 Gly Ser Arg His Phe Cys Gly Ala Thr Val Val Gly Asp Arg Trp Leu
 595 600 605
 Leu Ser Ala Ala His Cys Phe Asn His Thr Lys Val Glu Gln Val Arg
 610 615 620
 Ala His Leu Gly Thr Ala Ser Leu Leu Gly Leu Gly Gly Ser Pro Val
 625 630 635 640
 Lys Ile Gly Leu Arg Arg Val Val Leu His Pro Leu Tyr Asn Pro Gly
 645 650 655
 Ile Leu Asp Phe Asp Leu Ala Val Leu Glu Leu Ala Ser Pro Leu Ala
 660 665 670
 Phe Asn Lys Tyr Ile Gln Pro Val Cys Leu Pro Leu Ala Ile Gln Lys
 675 680 685
 Phe Pro Val Gly Arg Lys Cys Met Ile Ser Gly Trp Gly Asn Thr Gln
 690 695 700
 Glu Gly Asn Ala Thr Lys Pro Glu Leu Leu Gln Lys Ala Ser Val Gly
 705 710 715 720
 Ile Ile Asp Gln Lys Thr Cys Ser Val Leu Tyr Asn Phe Ser Leu Thr
 725 730 735
 Asp Arg Met Ile Cys Ala Gly Phe Leu Glu Gly Lys Val Asp Ser Cys
 740 745 750
 Gln Gly Asp Ser Gly Gly Pro Leu Ala Cys Glu Glu Ala Pro Gly Val
 755 760 765
 Phe Tyr Leu Ala Gly Ile Val Ser Trp Gly Ile Gly Cys Ala Gln Val
 770 775 780
 Lys Lys Pro Gly Val Tyr Thr Arg Ile Thr Arg Leu Lys Gly Trp Ile
 785 790 795 800
 Leu Glu Ile Met Ser Ser Gln Pro Leu Pro Met Ser Pro Pro Ser Thr
 805 810 815
 Thr Arg Met Leu Ala Thr Thr Ser Pro Arg Thr Thr Ala Gly Leu Thr
 820 825 830

Val Pro Gly Ala Thr Pro Ser Arg Pro Thr Pro Gly Ala Ala Ser Arg
 835 840 845
 Val Thr Gly Gln Pro Ala Asn Ser Thr Leu Ser Ala Val Ser Thr Thr
 850 855 860
 Ala Arg Gly Gln Thr Pro Phe Pro Asp Ala Pro Glu Ala Thr Thr His
 865 870 875 880
 Thr Gln Leu Pro Asp Cys Gly Leu Ala Pro Ala Ala Leu Thr Arg Ile
 885 890 895
 Val Gly Gly Ser Ala Ala Gly Arg Gly Glu Trp Pro Trp Gln Val Ser
 900 905 910
 Leu Trp Leu Arg Arg Arg Glu His Arg Cys Gly Ala Val Leu Val Ala
 915 920 925
 Glu Arg Trp Leu Leu Ser Ala Ala His Cys Phe Asp Val Tyr Gly Asp
 930 935 940
 Pro Lys Gln Trp Ala Ala Phe Leu Gly Thr Pro Phe Leu Ser Gly Ala
 945 950 955 960
 Glu Gly Gln Leu Glu Arg Val Ala Arg Ile Tyr Lys His Pro Phe Tyr
 965 970 975
 Asn Leu Tyr Thr Leu Asp Tyr Asp Val Ala Leu Leu Glu Leu Ala Gly
 980 985 990
 Pro Val Arg Arg Ser Arg Leu Val Arg Pro Ile Cys Leu Pro Glu Pro
 995 1000 1005
 Ala Pro Arg Pro Pro Asp Gly Thr Arg Cys Val Ile Thr Gly Trp Gly
 1010 1015 1020
 Ser Val Arg Glu Gly Gly Ser Met Ala Arg Gln Leu Gln Lys Ala Ala
 1025 1030 1035 1040
 Val Arg Leu Leu Ser Glu Gln Thr Cys Arg Arg Phe Tyr Pro Val Gln
 1045 1050 1055
 Ile Ser Ser Arg Met Leu Cys Ala Gly Phe Pro Gln Gly Gly Val Asp
 1060 1065 1070
 Ser Cys Ser Gly Asp Ala Gly Gly Pro Leu Ala Cys Arg Glu Pro Ser
 1075 1080 1085
 Gly Arg Trp Val Leu Thr Gly Val Thr Ser Trp Gly Tyr Gly Cys Gly
 1090 1095 1100
 Arg Pro His Phe Pro Gly Val Tyr Thr Arg Val Ala Ala Val Arg Gly
 1105 1110 1115 1120
 Trp Ile Gly Gln His Ile Gln Glu
 1125

<210> 98
 <211> 253
 <212> PRT
 <213> Homo sapiens

<400> 98

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Met Ala Arg Ser Leu Leu Leu Pro Leu Gln Ile Leu Leu Leu Ser Leu
 1              5              10              15

Ala Leu Glu Thr Ala Gly Glu Glu Ala Gln Gly Asp Lys Ile Ile Asp
      20              25              30

Gly Ala Pro Cys Ala Arg Gly Ser His Pro Trp Gln Val Ala Leu Leu
      35              40              45

Ser Gly Asn Gln Leu His Cys Gly Gly Val Leu Val Asn Glu Arg Trp
      50              55              60

Val Leu Thr Ala Ala His Cys Lys Met Asn Glu Tyr Thr Val His Leu
      65              70              75              80

Gly Ser Asp Thr Leu Gly Asp Arg Arg Ala Gln Arg Ile Lys Ala Ser
      85              90              95

Lys Ser Phe Arg His Pro Gly Tyr Ser Thr Gln Thr His Val Asn Asp
      100             105             110

Leu Met Leu Val Lys Leu Asn Ser Gln Ala Arg Leu Ser Ser Met Val
      115             120             125

Lys Lys Val Arg Leu Pro Ser Arg Cys Glu Pro Pro Gly Thr Thr Cys
      130             135             140

Thr Val Ser Gly Trp Gly Thr Thr Thr Ser Pro Asp Val Thr Phe Pro
      145             150             155             160

Ser Asp Leu Met Cys Val Asp Val Lys Leu Ile Ser Pro Gln Asp Cys
      165             170             175

Thr Lys Val Tyr Lys Asp Leu Leu Glu Asn Ser Met Leu Cys Ala Gly
      180             185             190

Ile Pro Asp Ser Lys Lys Asn Ala Cys Asn Gly Asp Ser Gly Gly Pro
      195             200             205

Leu Val Cys Arg Gly Thr Leu Gln Gly Leu Val Ser Trp Gly Thr Phe
      210             215             220

Pro Cys Gly Gln Pro Asn Asp Pro Gly Val Tyr Thr Gln Val Cys Lys
      225             230             235             240

Phe Thr Lys Trp Ile Asn Asp Thr Met Lys Lys His Arg
      245             250

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<210> 99
 <211> 272
 <212> PRT

<213> Homo sapiens

<400> 99

Val	Ser	Thr	Val	Cys	Gly	Lys	Pro	Lys	Val	Val	Gly	Lys	Ile	Tyr	Gly
1				5					10					15	
Gly	Arg	Asp	Ala	Ala	Ala	Gly	Gln	Trp	Pro	Trp	Gln	Ala	Ser	Leu	Leu
			20					25					30		
Tyr	Trp	Gly	Ser	His	Leu	Cys	Gly	Ala	Val	Leu	Ile	Asp	Ser	Cys	Trp
		35					40					45			
Leu	Val	Ser	Thr	Thr	His	Cys	Phe	Leu	Asn	Lys	Ser	Gln	Ala	Pro	Lys
	50					55					60				
Asn	Tyr	Gln	Val	Leu	Leu	Gly	Asn	Ile	Gln	Leu	Tyr	His	Gln	Thr	Gln
65					70					75					80
His	Thr	Gln	Lys	Met	Ser	Val	His	Arg	Ile	Ile	Thr	His	Pro	Asp	Phe
				85					90					95	
Glu	Lys	Leu	His	Pro	Phe	Gly	Ser	Asp	Ile	Ala	Met	Leu	Gln	Leu	His
			100					105					110		
Leu	Pro	Met	Asn	Phe	Thr	Ser	Tyr	Ile	Val	Pro	Val	Cys	Leu	Pro	Ser
		115					120					125			
Arg	Asp	Met	Gln	Leu	Pro	Ser	Asn	Val	Ser	Cys	Trp	Ile	Thr	Gly	Trp
	130					135					140				
Gly	Met	Leu	Thr	Glu	Asp	His	Lys	Arg	Val	Gln	Leu	Ser	Pro	Pro	Phe
145					150					155					160
Tyr	Leu	Gln	Glu	Gly	Lys	Val	Gly	Leu	Ile	Glu	Asn	Thr	Leu	Cys	Asn
			165					170						175	
Thr	Leu	Tyr	Gly	Gln	Arg	Thr	Ala	Lys	Ala	Arg	Pro	Lys	Leu	Cys	Thr
			180					185					190		
Arg	Arg	Cys	Cys	Val	Gly	Gly	Tyr	Phe	Ser	Thr	Gly	Lys	Ser	Ile	Cys
		195					200					205			
Lys	Gly	Asp	Ser	Gly	Gly	Pro	Leu	Val	Cys	Tyr	Leu	Pro	Ser	Ala	Trp
	210					215					220				
Val	Leu	Val	Gly	Leu	Ala	Ser	Trp	Gly	Leu	Asp	Cys	Arg	His	Pro	Ala
225					230					235					240
Tyr	Pro	Ser	Ile	Phe	Thr	Arg	Val	Thr	Tyr	Phe	Ile	Asn	Trp	Ile	Asp
			245						250					255	
Glu	Ile	Met	Arg	Leu	Thr	Pro	Leu	Ser	Asp	Pro	Ala	Leu	Ala	Pro	His
		260						265					270		

<210> 100
 <211> 578
 <212> PRT
 <213> Homo sapiens

<400> 100
 Met Leu Leu Ala Val Leu Leu Leu Leu Pro Leu Pro Ser Ser Trp Phe
 1 5 10 15
 Ala His Gly His Pro Leu Tyr Thr Arg Leu Pro Pro Ser Ala Leu Gln
 20 25 30
 Val Phe Thr Leu Leu Leu Gly Ala Glu Thr Val Leu Gly Arg Asn Leu
 35 40 45
 Asp Tyr Val Cys Glu Gly Pro Cys Gly Glu Arg Arg Pro Ser Thr Ala
 50 55 60
 Asn Val Thr Arg Ala His Gly Arg Ile Val Gly Gly Ser Ala Ala Pro
 65 70 75 80
 Pro Gly Ala Trp Pro Trp Leu Val Arg Leu Gln Leu Gly Gly Gln Pro
 85 90 95
 Leu Cys Gly Gly Val Leu Val Ala Ala Ser Trp Val Leu Thr Ala Ala
 100 105 110
 His Cys Phe Val Gly Cys Arg Ser Thr Arg Ser Ala Pro Asn Glu Leu
 115 120 125
 Leu Trp Thr Val Thr Leu Ala Glu Gly Ser Arg Gly Glu Gln Ala Glu
 130 135 140
 Glu Val Pro Val Asn Arg Ile Leu Pro His Pro Lys Phe Asp Pro Arg
 145 150 155 160
 Thr Phe His Asn Asp Leu Ala Leu Val Gln Leu Trp Thr Pro Val Ser
 165 170 175
 Pro Gly Gly Ser Ala Arg Pro Val Cys Leu Pro Gln Glu Pro Gln Glu
 180 185 190
 Pro Pro Ala Gly Thr Ala Cys Ala Ile Ala Gly Trp Gly Ala Leu Phe
 195 200 205
 Glu Asp Gly Pro Glu Ala Glu Ala Val Arg Glu Ala Arg Val Pro Leu
 210 215 220
 Leu Ser Thr Asp Thr Cys Arg Arg Ala Leu Gly Pro Gly Leu Arg Pro
 225 230 235 240
 Ser Thr Met Leu Cys Ala Gly Tyr Leu Ala Gly Gly Val Asp Ser Cys
 245 250 255
 Gln Gly Asp Ser Gly Gly Pro Leu Thr Cys Ser Glu Pro Gly Pro Arg
 260 265 270

Pro	Arg	Glu	Val	Leu	Phe	Gly	Val	Thr	Ser	Trp	Gly	Asp	Gly	Cys	Gly
275						280				285					
Glu	Pro	Gly	Lys	Pro	Gly	Val	Tyr	Thr	Arg	Val	Ala	Val	Phe	Lys	Asp
290						295				300					
Trp	Leu	Gln	Glu	Gln	Met	Ser	Ala	Ala	Ser	Ser	Ser	Arg	Glu	Pro	Ser
305				310						315		320			
Cys	Arg	Glu	Leu	Leu	Ala	Trp	Asp	Pro	Pro	Gln	Glu	Leu	Gln	Ala	Asp
				325				330						335	
Ala	Ala	Arg	Leu	Cys	Ala	Phe	Tyr	Ala	Arg	Leu	Cys	Pro	Gly	Ser	Gln
		340						345				350			
Gly	Ala	Cys	Ala	Arg	Leu	Ala	His	Gln	Gln	Cys	Leu	Gln	Arg	Arg	Arg
		355				360						365			
Arg	Cys	Glu	Leu	Arg	Ser	Leu	Ala	His	Thr	Leu	Leu	Gly	Leu	Leu	Arg
370						375				380					
Asn	Ala	Gln	Glu	Leu	Leu	Gly	Pro	Arg	Pro	Gly	Leu	Arg	Arg	Leu	Ala
385				390						395				400	
Pro	Ala	Leu	Ala	Leu	Pro	Ala	Pro	Ala	Leu	Arg	Glu	Ser	Pro	Leu	His
				405				410						415	
Pro	Ala	Arg	Glu	Leu	Arg	Leu	His	Ser	Gly	Ser	Arg	Ala	Ala	Gly	Thr
		420						425				430			
Arg	Phe	Pro	Lys	Arg	Arg	Pro	Glu	Pro	Arg	Gly	Glu	Ala	Asn	Gly	Cys
435						440						445			
Pro	Gly	Leu	Glu	Pro	Leu	Arg	Gln	Lys	Leu	Ala	Ala	Leu	Gln	Gly	Ala
450						455				460					
His	Ala	Trp	Ile	Leu	Gln	Val	Pro	Ser	Glu	His	Leu	Ala	Met	Asn	Phe
465				470						475		480			
His	Glu	Val	Leu	Ala	Asp	Leu	Gly	Ser	Lys	Thr	Leu	Thr	Gly	Leu	Phe
				485				490						495	
Arg	Ala	Trp	Val	Arg	Ala	Gly	Leu	Gly	Gly	Arg	His	Val	Ala	Phe	Ser
		500						505				510			
Gly	Leu	Val	Gly	Leu	Glu	Pro	Ala	Thr	Leu	Ala	Arg	Ser	Leu	Pro	Arg
		515				520						525			
Leu	Leu	Val	Gln	Ala	Leu	Gln	Ala	Phe	Arg	Val	Ala	Ala	Leu	Ala	Glu
530						535				540					
Gly	Glu	Pro	Glu	Gly	Pro	Trp	Met	Asp	Val	Gly	Gln	Gly	Pro	Gly	Leu
545				550						555				560	
Glu	Arg	Lys	Gly	His	His	Pro	Leu	Asn	Pro	Gln	Val	Pro	Pro	Ala	Arg
				565				570						575	
Gln	Pro														

<210> 101
 <211> 970
 <212> PRT
 <213> Homo sapiens

<400> 101

Met	Ser	Pro	Asp	Ile	Ala	Leu	Leu	Tyr	Leu	Lys	His	Lys	Val	Lys	Phe
1				5					10					15	
Gly	Asn	Ala	Val	Gln	Pro	Ile	Cys	Leu	Pro	Asp	Ser	Asp	Asp	Lys	Val
	20						25						30		
Glu	Pro	Gly	Ile	Leu	Cys	Leu	Ser	Ser	Gly	Trp	Gly	Lys	Ile	Ser	Lys
	35					40						45			
Thr	Ser	Glu	Tyr	Ser	Asn	Val	Leu	Gln	Glu	Met	Glu	Leu	Pro	Ile	Met
	50					55					60				
Asp	Asp	Arg	Ala	Cys	Asn	Thr	Val	Leu	Lys	Ser	Met	Asn	Leu	Pro	Pro
65					70					75					80
Leu	Gly	Arg	Thr	Met	Leu	Cys	Ala	Gly	Phe	Pro	Asp	Trp	Gly	Met	Asp
				85					90					95	
Ala	Cys	Gln	Gly	Asp	Ser	Gly	Gly	Pro	Leu	Val	Cys	Arg	Arg	Gly	Gly
		100						105					110		
Gly	Ile	Trp	Ile	Leu	Ala	Gly	Ile	Thr	Ser	Trp	Val	Ala	Gly	Cys	Ala
	115						120					125			
Gly	Gly	Ser	Val	Pro	Val	Arg	Asn	Asn	His	Val	Lys	Ala	Ser	Leu	Gly
	130					135					140				
Ile	Phe	Ser	Lys	Val	Ser	Glu	Leu	Met	Asp	Phe	Ile	Thr	Gln	Asn	Leu
145					150					155					160
Phe	Thr	Gly	Leu	Asp	Arg	Gly	Gln	Pro	Leu	Ser	Lys	Val	Gly	Ser	Arg
				165					170					175	
Tyr	Ile	Thr	Lys	Ala	Leu	Ser	Ser	Val	Gln	Glu	Val	Asn	Gly	Ser	Gln
			180					185					190		
Arg	Asp	Lys	Ile	Ile	Leu	Ile	Lys	Phe	Thr	Ser	Leu	Asp	Met	Glu	Lys
		195					200					205			
Gln	Val	Gly	Cys	Asp	His	Asp	Tyr	Val	Ser	Leu	Arg	Ser	Ser	Ser	Gly
	210					215					220				
Val	Leu	Phe	Ser	Lys	Val	Cys	Gly	Lys	Ile	Leu	Pro	Ser	Pro	Leu	Leu
225					230					235					240
Ala	Glu	Thr	Ser	Glu	Ala	Met	Val	Pro	Phe	Val	Ser	Asp	Thr	Glu	Asp
				245					250					255	

Ser Gly Ser Gly Phe Glu Leu Thr Val Thr Ala Val Gln Lys Ser Glu
 260 265 270
 Ala Gly Ser Gly Cys Gly Ser Leu Ala Ile Leu Val Glu Glu Gly Thr
 275 280 285
 Asn His Ser Ala Lys Tyr Pro Asp Leu Tyr Pro Ser Asn Thr Arg Cys
 290 295 300
 His Trp Phe Ile Cys Ala Pro Glu Lys His Ile Ile Lys Leu Thr Phe
 305 310 315 320
 Glu Asp Phe Ala Val Lys Phe Ser Pro Asn Cys Ile Tyr Asp Ala Val
 325 330 335
 Val Ile Tyr Gly Asp Ser Glu Glu Lys His Lys Leu Ala Lys Leu Cys
 340 345 350
 Gly Met Leu Thr Ile Thr Ser Ile Phe Ser Ser Ser Asn Met Thr Val
 355 360 365
 Ile Tyr Phe Lys Ser Asp Gly Lys Asn Arg Leu Gln Gly Phe Lys Ala
 370 375 380
 Arg Phe Thr Ile Leu Pro Ser Glu Ser Leu Asn Lys Phe Glu Pro Lys
 385 390 395 400
 Leu Pro Pro Gln Asn Asn Pro Val Ser Thr Val Lys Ala Ile Leu His
 405 410 415
 Asp Val Cys Gly Ile Pro Pro Phe Ser Pro Gln Trp Leu Ser Arg Arg
 420 425 430
 Ile Ala Gly Gly Glu Glu Ala Cys Pro His Cys Trp Pro Trp Gln Val
 435 440 445
 Gly Leu Arg Phe Leu Gly Asp Tyr Gln Cys Gly Gly Ala Ile Ile Asn
 450 455 460
 Pro Val Trp Ile Leu Thr Ala Ala His Cys Val Gln Leu Lys Asn Asn
 465 470 475 480
 Pro Leu Ser Trp Thr Ile Ile Ala Gly Asp His Asp Arg Asn Leu Lys
 485 490 495
 Glu Ser Thr Glu Gln Val Arg Arg Ala Lys His Ile Ile Val His Glu
 500 505 510
 Asp Phe Asn Thr Leu Ser Tyr Asp Ser Asp Ile Ala Leu Ile Gln Leu
 515 520 525
 Ser Ser Pro Leu Glu Tyr Asn Ser Val Val Arg Pro Val Cys Leu Pro
 530 535 540
 His Ser Ala Glu Pro Leu Phe Ser Ser Glu Ile Cys Ala Val Thr Gly
 545 550 555 560

Trp Gly Ser Ile Ser Ala Glu Leu Ser Leu Asn Val Ser Ser Leu Asp
 565 570 575
 Gly Gly Leu Ala Ser Arg Leu Gln Gln Ile Gln Val His Val Leu Glu
 580 585 590
 Arg Glu Val Cys Glu His Thr Tyr Tyr Ser Ala His Pro Gly Gly Ile
 595 600 605
 Thr Glu Lys Met Ile Cys Ala Gly Phe Ala Ala Ser Gly Glu Lys Asp
 610 615 620
 Phe Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Arg His Glu Asn
 625 630 635 640
 Gly Pro Phe Val Leu Tyr Gly Ile Val Ser Trp Gly Ala Gly Cys Val
 645 650 655
 Gln Pro Trp Lys Pro Gly Val Phe Ala Arg Val Met Ile Phe Leu Asp
 660 665 670
 Trp Ile Gln Ser Lys Ile Asn Gly Lys Leu Phe Ser Asn Val Ile Lys
 675 680 685
 Thr Ile Thr Ser Phe Phe Arg Val Gly Leu Gly Thr Val Ser Cys Cys
 690 695 700
 Ser Glu Ala Glu Leu Glu Lys Pro Arg Gly Phe Phe Pro Thr Pro Arg
 705 710 715 720
 Tyr Leu Leu Asp Tyr Arg Gly Arg Leu Glu Cys Ser Trp Val Leu Arg
 725 730 735
 Val Ser Ala Ser Ser Met Ala Lys Phe Thr Ile Glu Tyr Leu Ser Leu
 740 745 750
 Leu Gly Ser Pro Val Cys Gln Asp Ser Val Leu Ile Ile Tyr Glu Glu
 755 760 765
 Arg His Ser Lys Arg Lys Thr Ala Gly Gly Leu His Gly Arg Arg Leu
 770 775 780
 Tyr Ser Met Thr Phe Met Ser Pro Gly Pro Leu Val Arg Val Thr Phe
 785 790 795 800
 His Ala Leu Val Arg Gly Ala Phe Gly Ile Ser Tyr Ile Val Leu Lys
 805 810 815
 Val Leu Gly Pro Lys Asp Ser Lys Ile Thr Arg Leu Ser Gln Ser Ser
 820 825 830
 Asn Arg Glu His Leu Val Pro Cys Glu Asp Val Leu Leu Thr Lys Pro
 835 840 845
 Glu Gly Ile Met Gln Ile Pro Arg Asn Ser His Arg Thr Thr Met Gly
 850 855 860

Cys Gln Trp Arg Leu Val Ala Pro Leu Asn His Ile Ile Gln Leu Asn
 865 870 875 880
 Ile Ile Asn Phe Pro Met Lys Pro Thr Thr Phe Val Cys His Gly His
 885 890 895
 Leu Arg Val Tyr Glu Gly Phe Gly Pro Gly Lys Lys Leu Ile Gly Arg
 900 905 910
 Met Leu Met Ser Thr Glu Leu Ser Trp Phe Leu Ser Gln Phe Ser Thr
 915 920 925
 Lys Lys Thr Thr Ala Ser Cys Gly Glu Thr Ala Val Ser Met Lys Met
 930 935 940
 Met Tyr Thr Ser Ile Phe Leu Ala Leu Gln Asn Thr Cys Tyr His Ala
 945 950 955 960
 Leu Pro His Glu Val Val Leu Arg Ile Lys
 965 970

<210> 102
 <211> 265
 <212> PRT
 <213> Homo sapiens

<400> 102
 Met Lys Tyr Val Phe Tyr Leu Gly Val Leu Ala Gly Thr Phe Phe Phe
 1 5 10 15
 Ala Asp Ser Ser Val Gln Lys Glu Asp Pro Ala Pro Tyr Leu Val Tyr
 20 25 30
 Leu Lys Ser His Phe Asn Pro Cys Val Gly Val Leu Ile Lys Pro Ser
 35 40 45
 Trp Val Leu Ala Pro Ala His Cys Tyr Leu Pro Asn Leu Lys Val Met
 50 55 60
 Leu Gly Asn Phe Lys Ser Arg Val Arg Asp Gly Thr Glu Gln Thr Ile
 65 70 75 80
 Asn Pro Ile Gln Ile Val Arg Tyr Trp Asn Tyr Ser His Ser Ala Pro
 85 90 95
 Gln Asp Asp Leu Met Leu Ile Lys Leu Ala Lys Pro Ala Met Leu Asn
 100 105 110
 Pro Lys Val Gln Pro Leu Thr Leu Ala Thr Thr Asn Val Arg Pro Gly
 115 120 125
 Thr Val Cys Leu Leu Ser Gly Leu Asp Trp Ser Gln Glu Asn Ser Gly
 130 135 140
 Leu Trp Gln Leu Glu Pro Pro Gly His Leu Thr Leu His Arg Gly Pro
 145 150 155 160

Ala Ile Pro Asp Trp Gln Arg His Asn Ser His Glu Gln Gly Arg His
 165 170 175

Pro Asp Leu Arg Gln Asn Leu Glu Ala Pro Val Met Ser Asp Arg Glu
 180 185 190

Cys Gln Lys Thr Glu Gln Gly Lys Ser His Arg Asn Ser Leu Cys Val
 195 200 205

Lys Phe Val Lys Val Phe Ser Arg Ile Phe Gly Glu Val Ala Val Ala
 210 215 220

Thr Val Ile Cys Lys Asp Lys Leu Gln Gly Ile Glu Val Gly His Phe
 225 230 235 240

Met Gly Gly Asp Val Gly Ile Tyr Thr Asn Val Tyr Lys Tyr Val Ser
 245 250 255

Trp Ile Glu Asn Thr Ala Lys Asp Lys
 260 265

<210> 103
 <211> 454
 <212> PRT
 <213> Homo sapiens

<400> 103
 Met Gly Glu Asn Asp Pro Pro Ala Val Glu Ala Pro Phe Ser Phe Arg
 1 5 10 15

Ser Leu Phe Gly Leu Asp Asp Leu Lys Ile Ser Pro Val Ala Pro Asp
 20 25 30

Ala Asp Ala Val Ala Ala Gln Ile Leu Ser Leu Leu Pro Leu Lys Phe
 35 40 45

Phe Pro Ile Ile Val Ile Gly Ile Ile Ala Leu Ile Leu Ala Leu Ala
 50 55 60

Ile Gly Leu Gly Ile His Phe Asp Cys Ser Gly Lys Tyr Arg Cys Arg
 65 70 75 80

Ser Ser Phe Lys Cys Ile Glu Leu Ile Ala Arg Cys Asp Gly Val Ser
 85 90 95

Asp Cys Lys Asp Gly Glu Asp Glu Tyr Arg Cys Val Arg Val Gly Gly
 100 105 110

Gln Asn Ala Val Leu Gln Val Phe Thr Ala Ala Ser Trp Lys Thr Met
 115 120 125

Cys Ser Asp Asp Trp Lys Gly His Tyr Ala Asn Val Ala Cys Ala Gln
 130 135 140

Leu Gly Phe Pro Ser Tyr Val Ser Ser Asp Asn Leu Arg Val Ser Ser
 145 150 155 160

Leu Glu Gly Gln Phe Arg Glu Glu Phe Val Ser Ile Asp His Leu Leu
 165 170 175
 Pro Asp Asp Lys Val Thr Ala Leu His His Ser Val Tyr Val Arg Glu
 180 185 190
 Gly Cys Ala Ser Gly His Val Val Thr Leu Gln Cys Thr Ala Cys Gly
 195 200 205
 His Arg Arg Gly Tyr Ser Ser Arg Ile Val Gly Gly Asn Met Ser Leu
 210 215 220
 Leu Ser Gln Trp Pro Trp Gln Ala Ser Leu Gln Phe Gln Gly Tyr His
 225 230 235 240
 Leu Cys Gly Gly Ser Val Ile Thr Pro Leu Trp Ile Ile Thr Ala Ala
 245 250 255
 His Cys Val Tyr Asp Leu Tyr Leu Pro Lys Ser Trp Thr Ile Gln Val
 260 265 270
 Gly Leu Val Ser Leu Leu Asp Asn Pro Ala Pro Ser His Leu Val Glu
 275 280 285
 Lys Ile Val Tyr His Ser Lys Tyr Lys Pro Lys Arg Leu Gly Asn Asp
 290 295 300
 Ile Ala Leu Met Lys Leu Ala Gly Pro Leu Thr Phe Asn Glu Met Ile
 305 310 315 320
 Gln Pro Val Cys Leu Pro Asn Ser Glu Glu Asn Phe Pro Asp Gly Lys
 325 330 335
 Val Cys Trp Thr Ser Gly Trp Gly Ala Thr Glu Asp Gly Ala Gly Asp
 340 345 350
 Ala Ser Pro Val Leu Asn His Ala Ala Val Pro Leu Ile Ser Asn Lys
 355 360 365
 Ile Cys Asn His Arg Asp Val Tyr Gly Gly Ile Ile Ser Pro Ser Met
 370 375 380
 Leu Cys Ala Gly Tyr Leu Thr Gly Gly Val Asp Ser Cys Gln Gly Asp
 385 390 395 400
 Ser Gly Gly Pro Leu Val Cys Gln Glu Arg Arg Leu Trp Lys Leu Val
 405 410 415
 Gly Ala Thr Ser Phe Gly Ile Gly Cys Ala Glu Val Asn Lys Pro Gly
 420 425 430
 Val Tyr Thr Arg Val Thr Ser Phe Leu Asp Trp Ile His Glu Gln Met
 435 440 445
 Glu Arg Asp Leu Lys Thr
 450

<210> 104
 <211> 537
 <212> PRT
 <213> Homo sapiens

<400> 104

Met	Glu	Arg	Asp	Ser	His	Gly	Asn	Ala	Ser	Pro	Ala	Arg	Thr	Pro	Ser
1				5					10					15	
Ala	Gly	Ala	Ser	Pro	Ala	Gln	Ala	Ser	Pro	Ala	Gly	Thr	Pro	Pro	Gly
			20					25					30		
Arg	Ala	Ser	Pro	Ala	Gln	Ala	Ser	Pro	Ala	Gln	Ala	Ser	Pro	Ala	Gly
		35					40					45			
Thr	Pro	Pro	Gly	Arg	Ala	Ser	Pro	Ala	Gln	Ala	Ser	Pro	Ala	Gly	Thr
	50					55					60				
Pro	Pro	Gly	Arg	Ala	Ser	Pro	Gly	Arg	Ala	Ser	Pro	Ala	Gln	Ala	Ser
65					70					75					80
Pro	Ala	Gln	Ala	Ser	Pro	Ala	Gln	Ala	Ser	Pro	Ala	Arg	Ala	Ser	Pro
				85					90					95	
Ala	Leu	Ala	Ser	Leu	Ser	Arg	Ser	Ser	Ser	Gly	Arg	Ser	Ser	Ser	Ala
			100					105					110		
Arg	Ser	Ala	Ser	Val	Thr	Thr	Ser	Pro	Thr	Arg	Val	Tyr	Leu	Val	Arg
		115					120					125			
Ala	Thr	Pro	Val	Gly	Ala	Val	Pro	Ile	Arg	Ser	Ser	Pro	Ala	Arg	Ser
	130					135					140				
Ala	Pro	Ala	Thr	Arg	Ala	Thr	Arg	Glu	Ser	Pro	Val	Gln	Phe	Trp	Gln
145					150					155					160
Gly	His	Thr	Gly	Ile	Arg	Tyr	Lys	Glu	Gln	Arg	Glu	Ser	Cys	Pro	Lys
				165					170					175	
His	Ala	Val	Arg	Cys	Asp	Gly	Val	Val	Asp	Cys	Lys	Leu	Lys	Ser	Asp
			180					185					190		
Glu	Leu	Gly	Cys	Val	Arg	Phe	Asp	Trp	Asp	Lys	Ser	Leu	Leu	Lys	Ile
	195						200					205			
Tyr	Ser	Gly	Ser	Ser	His	Gln	Trp	Leu	Pro	Ile	Cys	Ser	Ser	Asn	Trp
	210					215					220				
Asn	Asp	Ser	Tyr	Ser	Glu	Lys	Thr	Cys	Gln	Gln	Leu	Gly	Phe	Glu	Ser
225					230					235					240
Ala	His	Arg	Thr	Thr	Glu	Val	Ala	His	Arg	Asp	Phe	Ala	Asn	Ser	Phe
				245					250					255	
Ser	Ile	Leu	Arg	Tyr	Asn	Ser	Thr	Ile	Gln	Glu	Ser	Leu	His	Arg	Ser
			260					265					270		

Glu Cys Pro Ser Gln Arg Tyr Ile Ser Leu Gln Cys Ser His Cys Gly
 275 280 285
 Leu Arg Ala Met Thr Gly Arg Ile Val Gly Gly Ala Leu Ala Ser Asp
 290 295 300
 Ser Lys Trp Pro Trp Gln Val Ser Leu His Phe Gly Thr Thr His Ile
 305 310 315 320
 Cys Gly Gly Thr Leu Ile Asp Ala Gln Trp Val Leu Thr Ala Ala His
 325 330 335
 Cys Phe Phe Val Thr Arg Glu Lys Val Leu Glu Gly Trp Lys Val Tyr
 340 345 350
 Ala Gly Thr Ser Asn Leu His Gln Leu Pro Glu Ala Ala Ser Ile Ala
 355 360 365
 Glu Ile Ile Ile Asn Ser Asn Tyr Thr Asp Glu Glu Asp Asp Tyr Asp
 370 375 380
 Ile Ala Leu Met Arg Leu Ser Lys Pro Leu Thr Leu Ser Ala His Ile
 385 390 395 400
 His Pro Ala Cys Leu Pro Met His Gly Gln Thr Phe Ser Leu Asn Glu
 405 410 415
 Thr Cys Trp Ile Thr Gly Phe Gly Lys Thr Arg Glu Thr Asp Asp Lys
 420 425 430
 Thr Ser Pro Phe Leu Arg Glu Val Gln Val Asn Leu Ile Asp Phe Lys
 435 440 445
 Lys Cys Asn Asp Tyr Leu Val Tyr Asp Ser Tyr Leu Thr Pro Arg Met
 450 455 460
 Met Cys Ala Gly Asp Leu Arg Gly Gly Arg Asp Ser Cys Gln Gly Asp
 465 470 475 480
 Ser Gly Gly Pro Leu Val Cys Glu Gln Asn Asn Arg Trp Tyr Leu Ala
 485 490 495
 Gly Val Thr Ser Trp Gly Thr Gly Cys Gly Gln Arg Asn Lys Pro Gly
 500 505 510
 Val Tyr Thr Lys Val Thr Glu Val Leu Pro Trp Ile Tyr Ser Lys Met
 515 520 525
 Glu Ser Glu Val Arg Phe Arg Lys Ser
 530 535

<210> 105

<211> 326

<212> PRT

<213> Homo sapiens

<400> 105

Met	Ala	Ala	Pro	Ala	Ser	Val	Met	Gly	Pro	Leu	Gly	Pro	Ser	Ala	Leu
1				5					10					15	
Gly	Leu	Leu	Leu	Leu	Leu	Leu	Val	Val	Ala	Pro	Pro	Arg	Val	Ala	Ala
			20					25					30		
Leu	Val	His	Arg	Gln	Pro	Glu	Asn	Gln	Gly	Ile	Ser	Leu	Thr	Gly	Ser
		35					40					45			
Val	Ala	Cys	Gly	Arg	Pro	Ser	Met	Glu	Gly	Lys	Ile	Leu	Gly	Gly	Val
	50					55					60				
Pro	Ala	Pro	Glu	Arg	Lys	Trp	Pro	Trp	Gln	Val	Ser	Val	His	Tyr	Ala
	65				70					75					80
Gly	Leu	His	Val	Cys	Gly	Gly	Ser	Ile	Leu	Asn	Glu	Tyr	Trp	Val	Leu
				85					90					95	
Ser	Ala	Ala	His	Cys	Phe	His	Arg	Asp	Lys	Asn	Ile	Lys	Ile	Tyr	Asp
			100					105					110		
Met	Tyr	Val	Gly	Leu	Val	Asn	Leu	Arg	Val	Ala	Gly	Asn	His	Thr	Gln
	115						120					125			
Trp	Tyr	Glu	Val	Asn	Arg	Val	Ile	Leu	His	Pro	Thr	Tyr	Glu	Met	Tyr
	130					135					140				
His	Pro	Ile	Gly	Gly	Asp	Val	Ala	Leu	Val	Gln	Leu	Lys	Thr	Arg	Ile
145					150					155					160
Val	Phe	Ser	Glu	Ser	Val	Leu	Pro	Val	Cys	Leu	Ala	Thr	Pro	Glu	Val
				165					170					175	
Asn	Leu	Thr	Ser	Ala	Asn	Cys	Trp	Ala	Thr	Gly	Trp	Gly	Leu	Val	Ser
			180					185					190		
Lys	Gln	Gly	Glu	Thr	Ser	Asp	Glu	Leu	Gln	Glu	Val	Gln	Leu	Pro	Leu
	195						200					205			
Ile	Leu	Glu	Pro	Trp	Cys	His	Leu	Leu	Tyr	Gly	His	Met	Ser	Tyr	Ile
	210				215						220				
Met	Pro	Asp	Met	Leu	Cys	Ala	Gly	Asp	Ile	Leu	Asn	Ala	Lys	Thr	Val
225					230					235					240
Cys	Glu	Gly	Asp	Ser	Gly	Gly	Pro	Leu	Val	Cys	Glu	Phe	Asn	Arg	Ser
				245					250					255	
Trp	Leu	Gln	Ile	Gly	Ile	Val	Ser	Trp	Gly	Arg	Gly	Cys	Ser	Asn	Pro
			260					265					270		
Leu	Tyr	Pro	Gly	Val	Tyr	Ala	Ser	Val	Ser	Tyr	Phe	Ser	Lys	Trp	Ile
	275						280					285			
Cys	Asp	Asn	Ile	Glu	Ile	Thr	Pro	Thr	Pro	Ala	Gln	Pro	Ala	Pro	Ala
	290					295					300				

Leu Ser Pro Ala Leu Gly Pro Thr Leu Ser Val Leu Met Ala Met Leu
 305 310 315 320

Ala Gly Trp Ser Val Leu
 325

<210> 106

<211> 556

<212> PRT

<213> Homo sapiens

<400> 106

Met Ser Leu Lys Met Leu Ile Ser Arg Asn Lys Leu Ile Leu Leu Leu
 1 5 10 15

Gly Ile Val Phe Phe Glu Arg Gly Lys Ser Ala Thr Leu Ser Leu Pro
 20 25 30

Lys Ala Pro Ser Cys Gly Gln Ser Leu Val Lys Val Gln Pro Trp Asn
 35 40 45

Tyr Phe Asn Ile Phe Ser Arg Ile Leu Gly Gly Ser Gln Val Glu Lys
 50 55 60

Gly Ser Tyr Pro Trp Gln Val Ser Leu Lys Gln Arg Gln Lys His Ile
 65 70 75 80

Cys Gly Gly Ser Ile Val Ser Pro Gln Trp Val Ile Thr Ala Ala His
 85 90 95

Cys Ile Ala Asn Arg Asn Ile Val Ser Thr Leu Asn Val Thr Ala Gly
 100 105 110

Glu Tyr Asp Leu Ser Gln Thr Asp Pro Gly Glu Gln Thr Leu Thr Ile
 115 120 125

Glu Thr Val Ile Ile His Pro His Phe Ser Thr Lys Lys Pro Met Asp
 130 135 140

Tyr Asp Ile Ala Leu Leu Lys Met Ala Gly Ala Phe Gln Phe Gly His
 145 150 155 160

Phe Val Gly Pro Ile Cys Leu Pro Glu Leu Arg Glu Gln Phe Glu Ala
 165 170 175

Gly Phe Ile Cys Thr Thr Ala Gly Trp Gly Arg Leu Thr Glu Gly Gly
 180 185 190

Val Leu Ser Gln Val Leu Gln Glu Val Asn Leu Pro Ile Leu Thr Trp
 195 200 205

Glu Glu Cys Val Ala Ala Leu Leu Thr Leu Lys Arg Pro Ile Ser Gly
 210 215 220

Lys Thr Phe Leu Cys Thr Gly Phe Pro Asp Gly Gly Arg Asp Ala Cys
 225 230 235 240

Gln	Gly	Asp	Ser	Gly	Gly	Ser	Leu	Met	Cys	Arg	Asn	Lys	Lys	Gly	Ala	245	250	255
Trp	Asp	Ser	Gly	Trp	Ser	Ile	Trp	Glu	Ala	Gln	Val	Gly	Gly	Ser	Leu	260	265	270
Glu	Ser	Arg	Ser	Ser	Arg	Pro	Ser	Leu	Gly	Asn	Lys	Val	Arg	Leu	Cys	275	280	285
Leu	Thr	Asn	Asn	Phe	Phe	Lys	Lys	Leu	Ala	Gly	Cys	Gly	Thr	Trp	Cys	290	295	300
Ser	Glu	Gln	Asp	Val	Ile	Val	Ser	Gly	Ala	Glu	Gly	Lys	Leu	His	Phe	305	310	315
Pro	Glu	Ser	Leu	His	Leu	Tyr	Tyr	Glu	Ser	Lys	Gln	Arg	Cys	Val	Trp	325	330	335
Thr	Leu	Leu	Val	Pro	Glu	Glu	Met	His	Val	Leu	Leu	Ser	Phe	Ser	His	340	345	350
Leu	Asp	Val	Glu	Ser	Cys	His	His	Ser	Tyr	Leu	Ser	Met	Tyr	Ser	Leu	355	360	365
Glu	Asp	Arg	Pro	Ile	Gly	Lys	Phe	Cys	Gly	Glu	Ser	Leu	Pro	Ser	Ser	370	375	380
Ile	Leu	Ile	Gly	Ser	Asn	Ser	Leu	Arg	Leu	Lys	Phe	Val	Ser	Asp	Ala	385	390	395
Thr	Asp	Tyr	Ala	Ala	Gly	Phe	Asn	Leu	Thr	Tyr	Lys	Ala	Leu	Lys	Pro	405	410	415
Asn	Tyr	Ile	Pro	Gly	Cys	Ser	Tyr	Leu	Thr	Val	Leu	Phe	Glu	Glu	Gly	420	425	430
Leu	Ile	Gln	Ser	Leu	Asn	Tyr	Pro	Glu	Asn	Tyr	Ser	Asp	Lys	Ala	Asn	435	440	445
Cys	Asp	Trp	Ile	Phe	Gln	Ala	Ser	Lys	His	His	Leu	Ile	Lys	Leu	Ser	450	455	460
Phe	Gln	Ser	Leu	Glu	Ile	Glu	Glu	Ser	Gly	Asp	Cys	Thr	Ser	Asp	Tyr	465	470	475
Val	Thr	Val	His	Ser	Asp	Val	Glu	Arg	Lys	Lys	Glu	Ile	Ala	Arg	Leu	485	490	495
Cys	Gly	Tyr	Asp	Val	Pro	Thr	Pro	Val	Leu	Ser	Pro	Ser	Ser	Ile	Met	500	505	510
Leu	Ile	Ser	Phe	His	Ser	Asp	Glu	Asn	Gly	Thr	Cys	Arg	Gly	Phe	Gln	515	520	525
Ala	Ile	Val	Ser	Phe	Ile	Pro	Lys	Ala	Val	Tyr	Pro	Asp	Leu	Asn	Ile	530	535	540

Ser Ile Ser Glu Asp Glu Ser Met Phe Leu Glu Thr
 545 550 555

<210> 107

<211> 298

<212> PRT

<213> Homo sapiens

<400> 107

Arg Trp Pro Trp Gln Ala Ser Leu Leu Tyr Leu Gly Gly His Ile Cys
 1 5 10 15

Gly Ala Ala Leu Ile Asp Ser Asn Trp Val Ala Ser Ala Ala His Cys
 20 25 30

Phe Gln Arg Cys Ile Phe Pro Pro Arg Ala Pro Leu Ser Thr Asn Pro
 35 40 45

Ser Asp Tyr Arg Ile Leu Leu Gly Tyr Asp Gln Gln Ser His Pro Thr
 50 55 60

Glu His Ser Lys Gln Met Thr Val Asn Lys Ile Met Val His Ala Asp
 65 70 75 80

Tyr Asn Glu Leu His Arg Met Gly Ser Asp Ile Thr Leu Leu Gln Leu
 85 90 95

His His His Val Glu Phe Ser Ser His Ile Leu Pro Ala Cys Leu Pro
 100 105 110

Glu Pro Thr Thr Trp Leu Ala Pro Asp Ser Ser Cys Trp Ile Ser Gly
 115 120 125

Trp Gly Met Val Thr Glu Asp Val Phe Leu Pro Glu Pro Phe Gln Leu
 130 135 140

Gln Glu Ala Glu Val Gly Val Met Asp Asn Thr Val Cys Gly Ser Phe
 145 150 155 160

Phe Gln Pro Gln Tyr Pro Gly Gln Pro Ser Ser Ser Asp Tyr Thr Ile
 165 170 175

His Glu Asp Met Leu Cys Ala Gly Asp Leu Ile Thr Gly Lys Ala Ile
 180 185 190

Cys Arg Val Asn Ser Arg Gly Pro Leu Val Cys Pro Leu Asn Gly Thr
 195 200 205

Trp Phe Leu Met Gly Leu Ser Ser Trp Ser Leu Asp Cys Cys Ser Pro
 210 215 220

Val Gly Pro Arg Val Phe Thr Arg Leu Pro Tyr Phe Thr Asn Trp Ile
 225 230 235 240

Ser Gln Lys Lys Arg Glu Ser Thr Pro Pro Asp Pro Ala Leu Ala Pro
 245 250 255

Pro Gln Glu Thr Pro Pro Ala Leu Asp Ser Met Thr Ser Gln Gly Ile
 260 265 270

Val His Lys Pro Gly Leu Cys Ala Ala Leu Leu Ala Ala His Met Phe
 275 280 285

Leu Leu Leu Leu Ile Leu Leu Gly Ser Leu
 290 295

<210> 108

<211> 850

<212> PRT

<213> Homo sapiens

<400> 108

Met Asp Lys Glu Asn Ser Asp Val Ser Ala Ala Pro Ala Asp Leu Lys
 1 5 10 15

Ile Ser Asn Ile Ser Val Gln Val Val Ser Ala Gln Lys Lys Leu Pro
 20 25 30

Val Arg Arg Pro Pro Leu Pro Gly Arg Arg Leu Pro Leu Pro Gly Arg
 35 40 45

Arg Pro Pro Gln Arg Pro Ile Gly Lys Ala Lys Pro Lys Lys Gln Ser
 50 55 60

Lys Lys Lys Val Pro Phe Trp Asn Val Gln Asn Lys Ile Ile Leu Phe
 65 70 75 80

Thr Val Phe Leu Phe Ile Leu Ala Val Ile Ala Trp Thr Leu Leu Trp
 85 90 95

Leu Tyr Ile Ser Lys Thr Glu Ser Lys Asp Ala Phe Tyr Phe Ala Gly
 100 105 110

Met Phe Arg Ile Thr Asn Ile Glu Phe Leu Pro Glu Tyr Arg Gln Lys
 115 120 125

Glu Ser Arg Glu Phe Leu Ser Val Ser Arg Thr Val Gln Gln Val Ile
 130 135 140

Asn Leu Val Tyr Thr Thr Ser Ala Phe Ser Lys Phe Tyr Glu Gln Ser
 145 150 155 160

Val Val Ala Asp Val Ser Ser Asn Asn Lys Gly Gly Leu Leu Val His
 165 170 175

Phe Trp Ile Val Phe Val Met Pro Arg Ala Lys Gly His Ile Phe Cys
 180 185 190

Glu Asp Cys Val Ala Ala Ile Leu Lys Asp Ser Ile Gln Thr Ser Ile
 195 200 205

Ile Asn Arg Thr Ser Val Gly Ser Leu Gln Gly Leu Ala Val Asp Met
 210 215 220

Asp Ser Val Val Leu Asn Gly Asp Cys Trp Ser Phe Leu Lys Lys Lys
 225 230 235 240
 Lys Arg Lys Glu Asn Gly Ala Val Ser Thr Asp Lys Gly Cys Ser Gln
 245 250 255
 Tyr Phe Tyr Ala Glu His Leu Ser Leu His Tyr Pro Leu Glu Ile Ser
 260 265 270
 Ala Ala Ser Gly Arg Leu Met Cys His Phe Lys Leu Val Ala Ile Val
 275 280 285
 Gly Tyr Leu Ile Arg Leu Ser Ile Lys Ser Ile Gln Ile Glu Ala Asp
 290 295 300
 Asn Cys Val Thr Asp Ser Leu Thr Ile Tyr Asp Ser Leu Leu Pro Ile
 305 310 315 320
 Arg Ser Ser Ile Leu Tyr Arg Ile Cys Glu Pro Thr Arg Thr Leu Met
 325 330 335
 Ser Phe Val Ser Thr Asn Asn Leu Met Leu Val Thr Phe Lys Ser Pro
 340 345 350
 His Ile Arg Arg Leu Ser Gly Ile Arg Ala Tyr Phe Glu Val Ile Pro
 355 360 365
 Glu Gln Lys Cys Glu Asn Thr Val Leu Val Lys Asp Ile Thr Gly Phe
 370 375 380
 Glu Gly Lys Ile Ser Ser Pro Tyr Tyr Pro Ser Tyr Tyr Pro Pro Lys
 385 390 395 400
 Cys Lys Cys Thr Trp Lys Phe Gln Thr Ser Leu Ser Thr Leu Gly Ile
 405 410 415
 Ala Leu Lys Phe Tyr Asn Tyr Ser Ile Thr Lys Lys Ser Met Lys Gly
 420 425 430
 Cys Glu His Gly Trp Trp Glu Ile Asn Glu His Met Tyr Cys Gly Ser
 435 440 445
 Tyr Met Asp His Gln Thr Ile Phe Arg Val Pro Ser Pro Leu Val His
 450 455 460
 Ile Gln Leu Gln Cys Ser Ser Arg Leu Ser Asp Lys Pro Leu Leu Ala
 465 470 475 480
 Glu Tyr Gly Ser Tyr Asn Ile Ser Gln Pro Cys Pro Val Gly Ser Phe
 485 490 495
 Arg Cys Ser Ser Gly Leu Cys Val Pro Gln Ala Gln Arg Cys Asp Gly
 500 505 510
 Val Asn Asp Cys Phe Asp Glu Ser Asp Glu Leu Phe Cys Val Ser Pro
 515 520 525

Gln Pro Ala Cys Asn Thr Ser Ser Phe Arg Gln His Gly Pro Leu Ile
 530 535 540
 Cys Asp Gly Phe Arg Asp Cys Glu Asn Gly Arg Asp Glu Gln Asn Cys
 545 550 555 560
 Thr Gln Ser Ile Pro Cys Asn Asn Arg Thr Phe Lys Cys Gly Asn Asp
 565 570 575
 Ile Cys Phe Arg Lys Gln Asn Ala Lys Cys Asp Gly Thr Val Asp Cys
 580 585 590
 Pro Asp Gly Ser Asp Glu Glu Gly Cys Thr Cys Ser Arg Ser Ser Ser
 595 600 605
 Ala Leu His Arg Ile Ile Gly Gly Thr Asp Thr Leu Glu Gly Gly Trp
 610 615 620
 Pro Trp Gln Val Ser Leu His Phe Val Gly Ser Ala Tyr Cys Gly Ala
 625 630 635 640
 Ser Val Ile Ser Arg Glu Trp Leu Leu Ser Ala Ala His Cys Phe His
 645 650 655
 Gly Asn Arg Leu Ser Asp Pro Thr Pro Trp Thr Ala His Leu Gly Met
 660 665 670
 Tyr Val Gln Gly Asn Ala Lys Phe Val Ser Pro Val Arg Arg Ile Val
 675 680 685
 Val His Glu Tyr Tyr Asn Ser Gln Thr Phe Asp Tyr Asp Ile Ala Leu
 690 695 700
 Leu Gln Leu Ser Ile Ala Trp Pro Glu Thr Leu Lys Gln Leu Ile Gln
 705 710 715 720
 Pro Ile Cys Ile Pro Pro Thr Gly Gln Arg Val Arg Ser Gly Glu Lys
 725 730 735
 Cys Trp Val Thr Gly Trp Gly Arg Arg His Glu Ala Asp Asn Lys Gly
 740 745 750
 Ser Leu Val Leu Gln Gln Ala Glu Val Glu Leu Ile Asp Gln Thr Leu
 755 760 765
 Cys Val Ser Thr Tyr Gly Ile Ile Thr Ser Arg Met Leu Cys Ala Gly
 770 775 780
 Ile Met Ser Gly Lys Arg Asp Ala Cys Lys Gly Asp Ser Gly Gly Pro
 785 790 795 800
 Leu Ser Cys Arg Arg Lys Ser Asp Gly Lys Trp Ile Leu Thr Gly Ile
 805 810 815
 Val Ser Trp Gly His Gly Cys Gly Arg Pro Asn Phe Pro Gly Val Tyr
 820 825 830

Thr Arg Val Ser Asn Phe Val Pro Trp Ile His Lys Tyr Val Pro Ser
 835 840 845

Leu Leu
 850

<210> 109

<211> 447

<212> PRT

<213> Homo sapiens

<400> 109

Met Thr Leu Asn Lys Ile Lys Asp Leu Phe Ala Gly Lys Gly Gln Trp
 1 5 10 15

Asp Leu Ala Pro Glu Ala Glu Met Leu Lys Pro Trp Met Ile Ala Val
 20 25 30

Leu Ile Val Leu Ser Leu Thr Val Val Ala Val Thr Ile Gly Leu Leu
 35 40 45

Val His Phe Leu Val Phe Asp Gln Lys Lys Glu Tyr Tyr His Gly Ser
 50 55 60

Phe Lys Ile Leu Asp Pro Gln Ile Asn Asn Asn Phe Gly Gln Ser Asn
 65 70 75 80

Thr Tyr Gln Leu Lys Asp Leu Arg Glu Thr Thr Glu Asn Leu Val Tyr
 85 90 95

Ser Leu Lys Met Tyr Leu Ser Phe Val Cys His Ser Pro Glu Glu Asp
 100 105 110

Gly Val Lys Val Asp Val Ile Met Val Phe Gln Phe Pro Ser Thr Glu
 115 120 125

Gln Arg Ala Val Arg Glu Lys Lys Ile Gln Ser Ile Leu Asn Gln Lys
 130 135 140

Ile Arg Asn Leu Arg Ala Leu Pro Ile Asn Ala Ser Ser Val Gln Val
 145 150 155 160

Asn Val Ala Met Val Lys Asn Gly Asn Val Gly Pro Gly Ser Gly Ala
 165 170 175

Gly Glu Ala Pro Gly Leu Gly Ala Gly Pro Ala Trp Ser Pro Met Ser
 180 185 190

Ser Ser Thr Gly Glu Leu Thr Val Gln Ala Ser Cys Gly Lys Arg Val
 195 200 205

Val Pro Leu Asn Val Asn Arg Ile Ala Ser Gly Val Ile Ala Pro Lys
 210 215 220

Ala Ala Trp Pro Trp Gln Ala Ser Leu Gln Tyr Asp Asn Ile His Gln
 225 230 235 240

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<210> 110
<211> 457
<212> PRT
<213> Homo sapiens
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<400> 110
Met Ser Leu Met Leu Asp Asp Gln Pro Pro Met Glu Ala Gln Tyr Ala
 1             5             10             15

Glu Glu Gly Pro Gly Pro Gly Ile Phe Arg Ala Glu Pro Gly Asp Gln
 20             25             30

Gln His Pro Ile Ser Gln Ala Val Cys Trp Arg Ser Met Arg Arg Gly
 35             40             45

Cys Ala Val Leu Gly Ala Leu Gly Leu Leu Ala Gly Ala Gly Val Gly
 50             55             60

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Ser Trp Leu Leu Val Leu Tyr Leu Cys Pro Ala Ala Ser Gln Pro Ile
 65 70 75 80
 Ser Gly Thr Leu Gln Asp Glu Glu Ile Thr Leu Ser Cys Ser Glu Ala
 85 90 95
 Ser Ala Glu Glu Ala Leu Leu Pro Ala Leu Pro Lys Thr Val Ser Phe
 100 105 110
 Arg Ile Asn Ser Glu Asp Phe Leu Leu Glu Ala Gln Val Arg Asp Gln
 115 120 125
 Pro Arg Trp Leu Leu Val Cys His Glu Gly Trp Ser Pro Ala Leu Gly
 130 135 140
 Leu Gln Ile Cys Trp Ser Leu Gly His Leu Arg Leu Thr His His Lys
 145 150 155 160
 Gly Val Asn Leu Thr Asp Ile Lys Leu Asn Ser Ser Gln Glu Phe Ala
 165 170 175
 Gln Leu Ser Pro Arg Leu Gly Gly Phe Leu Glu Glu Ala Trp Gln Pro
 180 185 190
 Arg Asn Asn Cys Thr Ser Gly Gln Val Val Ser Leu Arg Cys Ser Glu
 195 200 205
 Cys Gly Ala Arg Pro Leu Ala Ser Arg Ile Val Gly Gly Gln Ser Val
 210 215 220
 Ala Pro Gly Arg Trp Pro Trp Gln Ala Ser Val Ala Leu Gly Phe Arg
 225 230 235 240
 His Thr Cys Gly Gly Ser Val Leu Ala Pro Arg Trp Val Val Thr Ala
 245 250 255
 Ala His Cys Met His Ser Phe Arg Leu Ala Arg Leu Ser Ser Trp Arg
 260 265 270
 Val His Ala Gly Leu Val Ser His Ser Ala Val Arg Pro His Gln Gly
 275 280 285
 Ala Leu Val Glu Arg Ile Ile Pro His Pro Leu Tyr Ser Ala Gln Asn
 290 295 300
 His Asp Tyr Asp Val Ala Leu Leu Arg Leu Gln Thr Ala Leu Asn Phe
 305 310 315 320
 Ser Asp Thr Val Gly Ala Val Cys Leu Pro Ala Lys Glu Gln His Phe
 325 330 335
 Pro Lys Gly Ser Arg Cys Trp Val Ser Gly Trp Gly His Thr His Pro
 340 345 350
 Ser His Thr Tyr Ser Ser Asp Met Leu Gln Asp Thr Val Val Pro Leu
 355 360 365

Phe Ser Thr Gln Leu Cys Asn Ser Ser Cys Val Tyr Ser Gly Ala Leu
370 375 380

Thr Pro Arg Met Leu Cys Ala Gly Tyr Leu Asp Gly Arg Ala Asp Ala
385 390 395 400

Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Pro Asp Gly Asp Thr
405 410 415

Trp Arg Leu Val Gly Val Val Ser Trp Gly Arg Ala Cys Ala Glu Pro
420 425 430

Asn His Pro Gly Val Tyr Ala Lys Val Ala Glu Phe Leu Asp Trp Ile
435 440 445

His Asp Thr Ala Gln Asp Ser Leu Leu
450 455

<210> 111

<211> 818

<212> PRT

<213> Homo sapiens

<400> 111

Met Ala Arg His Leu Leu Leu Pro Leu Val Met Leu Val Ile Ser Pro
1 5 10 15

Ile Pro Gly Ala Phe Gln Asp Ser Ala Leu Ser Pro Thr Gln Glu Glu
20 25 30

Pro Glu Asp Leu Asp Cys Gly Arg Pro Glu Pro Ser Ala Arg Ile Val
35 40 45

Gly Gly Ser Asn Ala Gln Pro Gly Thr Trp Pro Trp Gln Val Ser Leu
50 55 60

His His Gly Gly Gly His Ile Cys Gly Gly Ser Leu Ile Ala Pro Ser
65 70 75 80

Trp Val Leu Ser Ala Ala His Cys Phe Met Thr Asn Gly Thr Leu Glu
85 90 95

Pro Ala Ala Glu Trp Ser Val Leu Leu Gly Val His Ser Gln Asp Gly
100 105 110

Pro Leu Asp Gly Ala His Thr Arg Ala Val Ala Ala Ile Val Val Pro
115 120 125

Ala Asn Tyr Ser Gln Val Glu Leu Gly Ala Asp Leu Ala Leu Leu Arg
130 135 140

Leu Ala Ser Pro Ala Ser Leu Gly Pro Ala Val Trp Pro Val Cys Leu
145 150 155 160

Pro Arg Ala Ser His Arg Phe Val His Gly Thr Ala Cys Trp Ala Thr
165 170 175

Gly Trp Gly Asp Val Gln Glu Ala Asp Pro Leu Pro Leu Pro Trp Val
 180 185 190
 Leu Gln Glu Val Glu Leu Arg Leu Leu Gly Glu Ala Thr Cys Gln Cys
 195 200 205
 Leu Tyr Ser Gln Pro Gly Pro Phe Asn Leu Thr Leu Gln Ile Leu Pro
 210 215 220
 Gly Met Leu Cys Ala Gly Tyr Pro Glu Gly Arg Arg Asp Thr Cys Gln
 225 230 235 240
 Gly Asp Ser Gly Gly Pro Leu Val Cys Glu Glu Gly Gly Arg Trp Phe
 245 250 255
 Gln Ala Gly Ile Thr Ser Phe Gly Phe Gly Cys Gly Arg Arg Asn Arg
 260 265 270
 Pro Gly Val Phe Thr Ala Val Ala Thr Tyr Glu Ala Trp Ile Arg Glu
 275 280 285
 Gln Val Met Gly Ser Glu Pro Gly Pro Ala Phe Pro Thr Gln Pro Gln
 290 295 300
 Lys Thr Gln Ser Asp Pro Gln Glu Pro Arg Glu Glu Asn Cys Thr Ile
 305 310 315 320
 Ala Leu Pro Glu Cys Gly Lys Ala Pro Arg Pro Gly Ala Trp Pro Trp
 325 330 335
 Glu Ala Gln Val Met Val Pro Gly Ser Arg Pro Cys His Gly Ala Leu
 340 345 350
 Val Ser Glu Ser Trp Val Leu Ala Pro Ala Ser Cys Phe Leu Asp Pro
 355 360 365
 Asn Ser Ser Asp Ser Pro Pro Arg Asp Leu Asp Ala Trp Arg Val Leu
 370 375 380
 Leu Pro Ser Arg Pro Arg Ala Glu Arg Val Ala Arg Leu Val Gln His
 385 390 395 400
 Glu Asn Ala Ser Trp Asp Asn Ala Ser Asp Leu Ala Leu Leu Gln Leu
 405 410 415
 Arg Thr Pro Val Asn Leu Ser Ala Ala Ser Arg Pro Val Cys Leu Pro
 420 425 430
 His Pro Glu His Tyr Phe Leu Pro Gly Ser Arg Cys Arg Leu Ala Arg
 435 440 445
 Trp Gly Arg Gly Glu Pro Ala Leu Gly Pro Gly Ala Leu Leu Glu Ala
 450 455 460
 Glu Leu Leu Gly Gly Trp Trp Cys His Cys Leu Tyr Gly Arg Gln Gly
 465 470 475 480

Ala Ala Val Pro Leu Pro Gly Asp Pro Pro His Ala Leu Cys Pro Ala
485 490 495

Tyr Gln Glu Lys Glu Glu Val Gly Ser Cys Trp Thr His Gly Pro Trp
500 505 510

Ile Ser His Val Thr Arg Gly Ala Tyr Leu Glu Asp Gln Leu Ala Trp
515 520 525

Asp Trp Gly Pro Asp Gly Glu Glu Thr Glu Thr Gln Thr Cys Pro Pro
530 535 540

His Thr Glu His Gly Ala Cys Gly Leu Arg Leu Glu Ala Ala Pro Val
545 550 555 560

Gly Val Leu Trp Pro Trp Leu Ala Glu Val His Val Ala Gly Asp Arg
565 570 575

Val Cys Thr Gly Ile Leu Leu Ala Pro Gly Trp Val Leu Ala Ala Thr
580 585 590

His Cys Val Leu Arg Pro Gly Ser Thr Thr Val Pro Tyr Ile Glu Val
595 600 605

Tyr Leu Gly Arg Ala Gly Ala Ser Ser Leu Pro Gln Gly His Gln Val
610 615 620

Ser Arg Leu Val Ile Ser Ile Arg Leu Pro Gln His Leu Gly Leu Arg
625 630 635 640

Pro Pro Leu Ala Leu Leu Glu Leu Ser Ser Arg Val Glu Pro Ser Pro
645 650 655

Ser Ala Leu Pro Ile Cys Leu His Pro Ala Gly Ile Pro Pro Gly Ala
660 665 670

Ser Cys Trp Val Leu Gly Trp Lys Glu Pro Gln Asp Arg Val Pro Val
675 680 685

Ala Ala Ala Val Ser Ile Leu Thr Gln Arg Ile Cys Asp Cys Leu Tyr
690 695 700

Gln Gly Ile Leu Pro Pro Gly Thr Leu Cys Val Leu Tyr Ala Glu Gly
705 710 715 720

Gln Glu Asn Arg Cys Glu Met Thr Ser Ala Pro Pro Leu Leu Cys Gln
725 730 735

Met Thr Glu Gly Ser Trp Ile Leu Val Gly Met Ala Val Gln Gly Ser
740 745 750

Arg Glu Leu Phe Ala Ala Ile Gly Pro Glu Glu Ala Trp Ile Ser Gln
755 760 765

Thr Val Gly Glu Ala Asn Phe Leu Pro Pro Ser Gly Ser Pro His Trp
770 775 780

Pro Thr Gly Gly Ser Asn Leu Cys Pro Pro Glu Leu Ala Lys Ala Ser
785 790 795 800

Gly Ser Pro His Ala Val Tyr Phe Leu Leu Leu Leu Thr Leu Leu Ile
805 810 815

Gln Ser

<210> 112

<211> 284

<212> PRT

<213> Homo sapiens

<400> 112

Ala Met Gly Leu Gly Leu Arg Gly Trp Gly Arg Pro Leu Leu Thr Val
1 5 10 15

Ala Thr Ala Leu Met Leu Pro Val Lys Pro Pro Ala Gly Ser Trp Gly
20 25 30

Ala Gln Ile Ile Gly Gly His Glu Val Thr Pro His Ser Arg Pro Tyr
35 40 45

Met Ala Ser Val Arg Phe Gly Gly Gln His His Cys Gly Gly Phe Leu
50 55 60

Leu Arg Ala Arg Trp Val Val Ser Ala Ala His Cys Phe Ser His Arg
65 70 75 80

Asp Leu Arg Thr Gly Leu Val Val Leu Gly Ala His Val Leu Ser Thr
85 90 95

Ala Glu Pro Thr Gln Gln Val Phe Gly Ile Asp Ala Leu Thr Thr His
100 105 110

Pro Asp Tyr His Pro Met Thr His Ala Asn Asp Ile Cys Leu Leu Gln
115 120 125

Leu Asn Gly Ser Ala Val Leu Gly Pro Ala Val Gly Leu Leu Arg Leu
130 135 140

Pro Gly Arg Arg Ala Arg Pro Pro Thr Ala Gly Thr Arg Cys Arg Val
145 150 155 160

Ala Gly Trp Gly Phe Val Ser Asp Phe Glu Glu Leu Pro Pro Gly Leu
165 170 175

Met Glu Ala Lys Val Arg Val Leu Asp Pro Asp Val Cys Asn Ser Ser
180 185 190

Trp Lys Gly His Leu Thr Leu Thr Met Leu Cys Thr Arg Ser Gly Asp
195 200 205

Ser His Arg Arg Gly Phe Cys Ser Ala Asp Ser Gly Gly Pro Leu Val
210 215 220

Cys Arg Asn Arg Ala His Gly Leu Val Ser Phe Ser Gly Leu Trp Cys
 225 230 235 240

Gly Asp Pro Lys Thr Pro Asp Val Tyr Thr Gln Val Ser Ala Phe Val
 245 250 255

Ala Trp Ile Trp Asp Val Val Arg Arg Ser Ser Pro Gln Pro Gly Pro
 260 265 270

Leu Pro Gly Thr Thr Arg Pro Pro Gly Glu Ala Ala
 275 280

<210> 113

<211> 802

<212> PRT

<213> Homo sapiens

<400> 113

Met Pro Val Ala Glu Ala Pro Gln Val Ala Gly Gly Gln Gly Asp Gly
 1 5 10 15

Gly Asp Gly Glu Glu Ala Glu Pro Glu Gly Met Phe Lys Ala Cys Glu
 20 25 30

Asp Ser Lys Arg Lys Ala Arg Gly Tyr Leu Arg Leu Val Pro Leu Phe
 35 40 45

Val Leu Leu Ala Leu Leu Val Leu Ala Ser Ala Gly Val Leu Leu Trp
 50 55 60

Tyr Phe Leu Gly Tyr Lys Ala Glu Val Met Val Ser Gln Val Tyr Ser
 65 70 75 80

Gly Ser Leu Arg Val Leu Asn Arg His Phe Ser Gln Asp Leu Thr Arg
 85 90 95

Arg Glu Ser Ser Ala Phe Arg Ser Glu Thr Ala Lys Ala Gln Lys Met
 100 105 110

Leu Lys Glu Leu Ile Thr Ser Thr Arg Leu Gly Thr Tyr Tyr Asn Ser
 115 120 125

Ser Ser Val Tyr Ser Phe Gly Glu Gly Pro Leu Thr Cys Phe Phe Trp
 130 135 140

Phe Ile Leu Gln Ile Pro Glu His Arg Arg Leu Met Leu Ser Pro Glu
 145 150 155 160

Val Val Gln Ala Leu Leu Val Glu Glu Leu Leu Ser Thr Val Asn Ser
 165 170 175

Ser Ala Ala Val Pro Tyr Arg Ala Glu Tyr Glu Val Asp Pro Glu Gly
 180 185 190

Leu Val Ile Leu Glu Ala Ser Val Lys Asp Ile Ala Ala Leu Asn Ser
 195 200 205

Thr	Leu	Gly	Cys	Tyr	Arg	Tyr	Ser	Tyr	Val	Gly	Gln	Gly	Gln	Val	Leu	210	215	220	
Arg	Leu	Lys	Gly	Pro	Asp	His	Leu	Ala	Ser	Ser	Cys	Leu	Trp	His	Leu	225	230	235	240
Gln	Gly	Pro	Lys	Asp	Leu	Met	Leu	Lys	Leu	Arg	Leu	Glu	Trp	Thr	Leu	245	250	255	
Ala	Glu	Cys	Arg	Asp	Arg	Leu	Ala	Met	Tyr	Asp	Val	Ala	Gly	Pro	Leu	260	265	270	
Glu	Lys	Arg	Leu	Ile	Thr	Ser	Val	Tyr	Gly	Cys	Ser	Arg	Gln	Glu	Pro	275	280	285	
Val	Val	Glu	Val	Leu	Ala	Ser	Gly	Ala	Ile	Met	Ala	Val	Val	Trp	Lys	290	295	300	
Lys	Gly	Leu	His	Ser	Tyr	Tyr	Asp	Pro	Phe	Val	Leu	Ser	Val	Gln	Pro	305	310	315	320
Val	Val	Phe	Gln	Ala	Cys	Glu	Val	Asn	Leu	Thr	Leu	Asp	Asn	Arg	Leu	325	330	335	
Asp	Ser	Gln	Gly	Val	Leu	Ser	Thr	Pro	Tyr	Phe	Pro	Ser	Tyr	Tyr	Ser	340	345	350	
Pro	Gln	Thr	His	Cys	Ser	Trp	His	Leu	Thr	Val	Pro	Ser	Leu	Asp	Tyr	355	360	365	
Gly	Leu	Ala	Leu	Trp	Phe	Asp	Ala	Tyr	Ala	Leu	Arg	Arg	Gln	Lys	Tyr	370	375	380	
Asp	Leu	Pro	Cys	Thr	Gln	Gly	Gln	Trp	Thr	Ile	Gln	Asn	Arg	Arg	Leu	385	390	395	400
Cys	Gly	Leu	Arg	Ile	Leu	Gln	Pro	Tyr	Ala	Glu	Arg	Ile	Pro	Val	Val	405	410	415	
Ala	Thr	Ala	Gly	Ile	Thr	Ile	Asn	Phe	Thr	Ser	Gln	Ile	Ser	Leu	Thr	420	425	430	
Gly	Pro	Gly	Val	Arg	Val	His	Tyr	Gly	Leu	Tyr	Asn	Gln	Ser	Asp	Pro	435	440	445	
Cys	Pro	Gly	Glu	Phe	Leu	Cys	Ser	Val	Asn	Gly	Leu	Cys	Val	Pro	Ala	450	455	460	
Cys	Asp	Gly	Val	Lys	Asp	Cys	Pro	Asn	Gly	Leu	Asp	Glu	Arg	Asn	Cys	465	470	475	480
Val	Cys	Arg	Ala	Thr	Phe	Gln	Cys	Lys	Glu	Asp	Ser	Thr	Cys	Ile	Ser	485	490	495	
Leu	Pro	Lys	Val	Cys	Asp	Gly	Gln	Pro	Asp	Cys	Leu	Asn	Gly	Ser	Asp	500	505	510	

Glu Glu Gln Cys Gln Glu Gly Val Pro Cys Gly Thr Phe Thr Phe Gln
 515 520 525
 Cys Glu Asp Arg Ser Cys Val Lys Lys Pro Asn Pro Gln Cys Asp Gly
 530 535 540
 Arg Pro Asp Cys Arg Asp Gly Ser Asp Glu Glu His Cys Asp Cys Gly
 545 550 555 560
 Leu Gln Gly Pro Ser Ser Arg Ile Val Gly Gly Ala Val Ser Ser Glu
 565 570 575
 Gly Glu Trp Pro Trp Gln Ala Ser Leu Gln Val Arg Gly Arg His Ile
 580 585 590
 Cys Gly Gly Ala Leu Ile Ala Asp Arg Trp Val Ile Thr Ala Ala His
 595 600 605
 Cys Phe Gln Glu Asp Ser Met Ala Ser Thr Val Leu Trp Thr Val Phe
 610 615 620
 Leu Gly Lys Val Trp Gln Asn Ser Arg Trp Pro Gly Glu Val Ser Phe
 625 630 635 640
 Lys Val Ser Arg Leu Leu Leu His Pro Tyr His Glu Glu Asp Ser His
 645 650 655
 Asp Tyr Asp Val Ala Leu Leu Gln Leu Asp His Pro Val Val Arg Ser
 660 665 670
 Ala Ala Val Arg Pro Val Cys Leu Pro Ala Arg Ser His Phe Phe Glu
 675 680 685
 Pro Gly Leu His Cys Trp Ile Thr Gly Trp Gly Ala Leu Arg Glu Gly
 690 695 700
 Gly Pro Ile Ser Asn Ala Leu Gln Lys Val Asp Val Gln Leu Ile Pro
 705 710 715 720
 Gln Asp Leu Cys Ser Glu Ala Tyr Arg Tyr Gln Val Thr Pro Arg Met
 725 730 735
 Leu Cys Ala Gly Tyr Arg Lys Gly Lys Lys Asp Ala Cys Gln Gly Asp
 740 745 750
 Ser Gly Gly Pro Leu Val Cys Lys Ala Leu Ser Gly Arg Trp Phe Leu
 755 760 765
 Ala Gly Leu Val Ser Trp Gly Leu Gly Cys Gly Arg Pro Asn Tyr Phe
 770 775 780
 Gly Val Tyr Thr Arg Ile Thr Gly Val Ile Ser Trp Ile Gln Gln Val
 785 790 795 800
 Val Thr

<210> 114

<211> 359

<212> PRT

<213> Homo sapiens

<400> 114

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Asp Leu Pro Pro Ser Cys Ser Pro Ala Ser Lys Met Arg Leu Gly Leu
 1              5              10              15

Leu Ser Val Ala Leu Leu Phe Val Gly Ser Ser His Leu Tyr Ser Asp
      20              25              30

His Tyr Ser Pro Ser Gly Arg His Arg Leu Gly Pro Ser Pro Glu Pro
      35              40              45

Ala Ala Ser Ser Gln Gln Ala Glu Ala Val Arg Lys Arg Leu Arg Arg
      50              55              60

Arg Arg Glu Gly Gly Ala His Ala Lys Asp Cys Gly Thr Ala Pro Leu
      65              70              75              80

Lys Asp Val Leu Gln Gly Ser Arg Ile Ile Gly Gly Thr Glu Ala Gln
      85              90              95

Ala Gly Ala Trp Pro Trp Val Val Ser Leu Gln Ile Lys Tyr Gly Arg
      100             105             110

Val Leu Val His Val Cys Gly Gly Thr Leu Val Arg Glu Arg Trp Val
      115             120             125

Leu Thr Ala Ala His Cys Thr Lys Asp Thr Ser Asp Pro Leu Met Trp
      130             135             140

Thr Ala Val Ile Gly Thr Asn Asn Ile His Gly Arg Tyr Pro His Thr
      145             150             155             160

Lys Lys Ile Lys Ile Lys Ala Ile Ile Ile His Pro Asn Phe Ile Leu
      165             170             175

Glu Ser Tyr Val Asn Asp Ile Ala Leu Phe His Leu Lys Lys Ala Val
      180             185             190

Arg Tyr Asn Asp Tyr Ile Gln Pro Ile Cys Leu Pro Phe Asp Val Phe
      195             200             205

Gln Ile Leu Asp Gly Asn Thr Lys Cys Phe Ile Ser Gly Trp Gly Arg
      210             215             220

Thr Lys Glu Glu Gly Asn Ala Thr Asn Ile Leu Gln Asp Ala Glu Val
      225             230             235             240

His Tyr Ile Ser Arg Glu Met Cys Asn Ser Glu Arg Ser Tyr Gly Gly
      245             250             255

Ile Ile Pro Asn Thr Ser Phe Cys Ala Gly Asp Glu Asp Gly Ala Phe
      260             265             270

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Asp Thr Cys Arg Gly Asp Ser Gly Gly Pro Leu Met Cys Tyr Leu Pro
 275 280 285
 Glu Tyr Lys Arg Phe Phe Val Met Gly Ile Thr Ser Tyr Gly His Gly
 290 295 300
 Cys Gly Arg Arg Gly Phe Pro Gly Val Tyr Ile Gly Pro Ser Phe Tyr
 305 310 315 320
 Gln Lys Trp Leu Thr Glu His Phe Phe His Ala Ser Thr Gln Gly Ile
 325 330 335
 Leu Thr Ile Asn Ile Leu Arg Gly Gln Ile Leu Ile Ala Leu Cys Phe
 340 345 350
 Val Ile Leu Leu Ala Thr Thr
 355

<210> 115
 <211> 288
 <212> PRT
 <213> Homo sapiens

<400> 115
 Ser Pro Pro Gln Pro Arg Thr Pro Asp Cys Arg Leu Gln Ala Ser Leu
 1 5 10 15
 Glu Ala Leu Ala Thr Leu Ala Pro Gln Pro Ser Asp Trp Leu Cys Phe
 20 25 30
 Ala Asp Leu Gly Trp Phe Glu Ala Asp Gly Ala Ala His Ser Met Gly
 35 40 45
 Leu Gly Ser Ser Leu Lys Trp Ala Trp Ala Lys Pro Ser Gly Met Pro
 50 55 60
 Val Pro Glu Asn Asp Leu Val Gly Ile Val Gly Gly His Asn Ala Pro
 65 70 75 80
 Pro Gly Lys Trp Pro Trp Gln Val Ser Leu Arg Val Tyr Ser Tyr His
 85 90 95
 Trp Ala Ser Trp Ala His Ile Cys Gly Gly Ser Leu Ile His Pro Gln
 100 105 110
 Trp Val Leu Thr Ala Ala His Cys Ile Phe Trp Lys Asp Thr Asp Pro
 115 120 125
 Ser Ile Tyr Arg Ile His Ala Gly Asp Val Tyr Leu Tyr Gly Gly Arg
 130 135 140
 Gly Leu Leu Asn Val Ser Arg Ile Ile Val His Pro Asn Tyr Val Thr
 145 150 155 160
 Ala Gly Leu Gly Ala Asp Val Ala Leu Leu Gln Leu Pro Gly Ser Pro
 165 170 175

Leu Ser Pro Glu Ser Leu Pro Pro Pro Tyr Arg Leu Gln Gln Ala Ser
 180 185 190
 Val Gln Val Leu Glu Asn Ala Val Cys Glu Gln Pro Tyr Arg Asn Ala
 195 200 205
 Ser Gly His Thr Gly Asp Arg Gln Leu Ile Leu Asp Asp Met Leu Cys
 210 215 220
 Ala Gly Ser Glu Gly Arg Asp Ser Cys Tyr Gly Asp Ser Gly Gly Pro
 225 230 235 240
 Leu Val Cys Arg Leu Arg Gly Ser Trp Arg Leu Val Gly Val Val Ser
 245 250 255
 Trp Gly Tyr Gly Cys Thr Leu Arg Asp Phe Pro Gly Val Tyr Thr His
 260 265 270
 Val Gln Ile Tyr Val Leu Trp Ile Leu Gln Gln Val Gly Glu Leu Pro
 275 280 285

<210> 116
 <211> 45
 <212> PRT
 <213> Homo sapiens

<400> 116
 Ile Ile Gly Gly His Glu Val Thr Pro His Ser Arg Pro Tyr Met Ala
 1 5 10 15
 Ser Val Arg Phe Gly Gly Gln His His Cys Gly Gly Phe Leu Leu Arg
 20 25 30
 Ala Arg Trp Val Val Ser Ala Ala Gln Cys Phe Ser His
 35 40 45

<210> 117
 <211> 46
 <212> PRT
 <213> Homo sapiens

<400> 117
 Gly Asp Ser Gly Gly Pro Leu Val Cys Glu Leu Asn Gly Thr Trp Val
 1 5 10 15
 Gln Val Gly Ile Val Ser Trp Gly Ile Gly Cys Gly Arg Lys Gly Tyr
 20 25 30
 Pro Gly Val Tyr Thr Glu Val Ser Phe Tyr Lys Lys Trp Ile
 35 40 45

<210> 118
 <211> 309
 <212> PRT
 <213> Homo sapiens

<400> 118

Met	Ala	Gly	Glu	Gln	Val	Thr	Ala	Asn	Val	Ser	Arg	Tyr	Pro	Gly	Gln
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Lys	Thr	Met	Ser	Phe	Pro	Glu	Lys	Thr	Phe	Leu	Leu	Ser	Tyr	Arg	Ala
			20					25					30		
Ser	Leu	Leu	Ala	Val	Val	Thr	His	Arg	Ser	Asn	Asn	Ser	Arg	Gly	Arg
	35						40					45			
Ala	Phe	Glu	Ser	Gln	Val	Leu	Pro	Asp	Leu	Thr	Ala	Gly	Asp	Ala	Ala
	50					55					60				
Asp	Pro	Pro	Ile	Pro	Pro	Leu	Gly	Pro	Gly	Ala	Ala	Leu	Leu	Lys	Ser
65					70					75					80
Gly	Pro	Phe	Arg	Ile	Trp	Gln	Gly	Val	Lys	Thr	Lys	Gly	Glu	Glu	Gly
				85					90					95	
Asp	Arg	Asp	Thr	Gly	Thr	Ala	Gly	Tyr	Ala	Phe	Thr	Leu	Leu	Leu	Leu
			100					105					110		
Leu	Gly	Ile	Ser	Gly	Glu	Pro	Pro	Glu	Trp	Val	Cys	Gly	Arg	Pro	Thr
	115						120					125			
Val	Ser	Ser	Gly	Ile	Ala	Ser	Gly	Leu	Gly	Ala	Ser	Val	Gly	Gln	Trp
	130					135					140				
Pro	Trp	Gln	Val	Ser	Ile	Arg	Gln	Gly	Leu	Ile	His	Val	Cys	Ser	Asp
145					150					155					160
Thr	Leu	Ile	Ser	Glu	Glu	Trp	Val	Leu	Thr	Val	Ala	Ile	Cys	Phe	Pro
				165					170					175	
Leu	Ser	Pro	His	Pro	Asp	Phe	Gln	Ala	Asn	Thr	Ser	Ser	Ala	Ile	Ala
			180					185					190		
Val	Val	Glu	Leu	Pro	Ser	Pro	Val	Ser	Val	Ser	Pro	Val	Val	Leu	Leu
	195						200					205			
Ile	Cys	Leu	Pro	Ser	Ser	Glu	Val	Tyr	Leu	Lys	Lys	Asn	Thr	Thr	Ser
	210					215					220				
Cys	Trp	Val	Thr	Gly	Trp	Gly	Tyr	Thr	Gly	Ile	Phe	Gln	Tyr	Ile	Lys
225					230					235					240
Arg	Ser	Tyr	Thr	Leu	Lys	Glu	Leu	Lys	Val	Pro	Leu	Ile	Asp	Leu	Gln
				245					250					255	
Thr	Cys	Gly	Asp	His	Tyr	Gln	Asn	Glu	Ile	Leu	Leu	His	Gly	Val	Glu
			260					265					270		

Leu Ile Ile Ser Glu Ala Met Ile Cys Ser Lys Leu Pro Val Gly Gln
 275 280 285

Met Asp Gln Cys Thr Val Arg Ile His Pro Ser Gly Thr Phe His Arg
 290 295 300

Pro Cys Leu Pro Gln
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<210> 119
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: SNP

<400> 119
 agaaggccta ygaagggg 18

<210> 120
 <211> 22
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 <213> Homo sapiens

<400> 120
 gctgctgctg ctgctggtgc ag 22

<210> 121
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: SNP

<400> 121
 ctaccctagc ygaggaaga 19

<210> 122
 <211> 15
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<220>
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<400> 122
 tggaatarct cggac 15

<210> 123
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<223> Description of Artificial Sequence: SNP

<400> 123

tggtaatccg kgtagagg

18

<210> 124

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SNP

<400> 124

agagaaatay gaggtatt

19

<210> 125

<211> 21

<212> DNA

<213> Homo sapiens

<400> 125

ggtgggcatc atcagctggg g

21

<210> 126

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SNP

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<210> 127

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<212> DNA

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<223> Description of Artificial Sequence: SNP

<400> 127

gccggacsac tcgc

14

<210> 128

<211> 19

<212> DNA

<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: SNP

 <400> 128
 gagcatctgc vggagagag 19

 <210> 129
 <211> 15
 <212> DNA
 <213> Homo sapiens

 <400> 129
 tggagakaag aacac 15

 <210> 130
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 <223> Description of Artificial Sequence: SNP

 <400> 130
 gctctaccwc cacgccc 17

 <210> 131
 <211> 20
 <212> DNA
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 <220>
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 <400> 131
 cgcacctgct cyaccaccac 20

 <210> 132
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 <212> DNA
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 <220>
 <223> Description of Artificial Sequence: SNP

 <400> 132
 ctgccagaag gayggagcct gg 22

 <210> 133
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<220>
<223> Description of Artificial Sequence: SNP

<400> 133
gtctgccara aggacg 16

<210> 134
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<212> DNA
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<220>
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<400> 134
gggtgactct gmgggccccc t 21

<210> 135
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<400> 135
tgcatgggyg actctgg 17

<210> 136
<211> 16
<212> DNA
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<400> 136
gccgtgarca ccactg 16

<210> 137
<211> 18
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<400> 137
agcggccasc attggcgt 18

<210> 138
<211> 18
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<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SNP

<400> 138

gacatggawg tggacgac

18

<210> 139

<211> 19

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: SNP

<400> 139

acaattttty gagtgccca

19

<210> 140

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SNP

<400> 140

acatacgccr gatttgtttg

20

<210> 141

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SNP

<400> 141

tgggagcrgg tcctgcct

18

<210> 142

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SNP

<400> 142

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21

<210> 143
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: SNP

<400> 143
 agcgaggyct atcgcta

17

<210> 144
 <211> 15
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: SNP

<400> 144
 gggcgcatgc aragg

15

<210> 145
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: SNP

<400> 145
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21

<210> 146
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<220>
 <221> MOD_RES
 <222> (1)
 <223> pGlu

<400> 146
 Glu Arg Thr Lys Arg
 1 5

<210> 147
 <211> 20
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 147

ggagctgtcg tattccagtc

20

<210> 148

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 148

aacccctcaa gacccgttta g

21

<210> 149

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: His tag

<400> 149

His His His His His His

1

5

<210> 150

<211> 16

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
illustrative DNA

<220>

<221> modified_base

<222> (15)

<223> a, c, g, t or any

<220>

<221> modified_base

<222> (16)

<223> a, c, g or t

<400> 150

gacrywskm bvdhnn

16